

&lt;110&gt;

&lt;120&gt; CARCINOGENESIS\_\_BIOMARKERS

&lt;130&gt;

&lt;160&gt; 580

&lt;210&gt; 1

&lt;211&gt; 271

&lt;212&gt; DNA

&lt;213&gt; Rattus norvegicus

&lt;400&gt; 1

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120

gaaacaaaaa tatttttgta atcatcaaatt ttatactagc tatctgggtg ttagcatatc  
180

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240

tgaatggatg gaaaacaatc atgttggttt a  
271

&lt;210&gt; 2

&lt;211&gt; 206

&lt;212&gt; DNA

&lt;213&gt; Rattus norvegicus

&lt;400&gt; 2

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120

gactgtggtt ttctggacgt gttgtgtctg ttagtgtctt ttgactttt gtttcgtgtt  
180

tgaatttggg ctgacgaactg tgttta  
206

&lt;210&gt; 3

&lt;211&gt; 74

&lt;212&gt; DNA

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<400> 3

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<212> DNA

<213> Rattus norvegicus

<400> 4

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120

gatagccctg ccctcagctg tgggaacaca gtggctgtca agccagcaga gcaaactcct  
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<210> 5

<211> 147

<212> DNA

<213> Rattus norvegicus

<400> 5

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120

cagggaactga actactgtct cctttta  
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<210> 6

<211> 366

<212> DNA

<213> Rattus norvegicus

<223> unsure at all n locations

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120

aagaacacta ttcttgctcaa atggctaccc caaaacgata tgcttggtca tccaaaggct  
180

cgggcgttca tcacacactc ccgggtccca tggatattat gaaggaatat gcaatggggt  
240

tcccaatggt gatgatgcc ttgtttggtg atcagatgga caacgccaag cgcattgaaa  
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ctcgggggagc tggggtgacc ctgaatgtcc tgaaaatgac tgccgatgat ttggaaaacg  
360

ccctta  
366

&lt;210&gt; 7

&lt;211&gt; 156

&lt;212&gt; DNA

&lt;213&gt; Rattus norvegicus

&lt;223&gt; unsure at all n locations

&lt;400&gt; 7

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cgcaaagcat gagggctggg agaggaccnn ggtgtttgcc tggccagtgt gaagcagtca  
120

caaggagggtg actggacaaa ctagcatgtg gcctta  
156

&lt;210&gt; 8

&lt;211&gt; 103

&lt;212&gt; DNA

&lt;213&gt; Rattus norvegicus

&lt;400&gt; 8

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103

<210> 9  
<211> 127  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
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<210> 10  
<211> 400  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 10

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120

tactttctgca aaaccaactg tgtgcttttt gaaggagaga ctccagatga aacagttatc  
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240

atcaaggatg agccatctca taaaactagc ccaaaaagta ccaactgcta acctggagga  
300

tgtttctgcc ctgcgtgaag accttactga aatcctgtcc agatgttgta agtctacctc  
360

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<211> 57  
<212> DNA  
<213> Rattus norvegicus



<400> 11

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<210> 12

<211> 231

<212> DNA

<213> Rattus norvegicus

<223> unsure at all n locations

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tgctccagtg ggattgcaca agaattgtctg tgcagaagca aagacagcct tttaccagt  
180

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<210> 13

<211> 295

<212> DNA

<213> Rattus norvegicus

<223> unsure at all n locations

<400> 13

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120

ctaaataggc caccaagtga cagcaaaatg gtgccaaagn totactacag cactgctaag  
180

aaccgacagc tgagaagccg gatagcttct gacctagagt gcacacacct aagtctcaa  
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ctggaccttg atagccaaca aatgggagca gtgtcttctc tcttttagcac ctta  
295

<210> 14

<211> 188

<212> DNA  
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<400> 14

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ctgtacgatt gcctgaagga gaagcactgc agtggttgac agagcgtgct atgagttggc  
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aagatagagc acgacaagct ttagccacag atgaactgct ttctgccctg gccaaactct  
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188

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<211> 194  
<212> DNA  
<213> Rattus norvegicus

<400> 15

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ataggttgga atggtgagca atatcagaga accatgtttt ctctcaggac actttctgtg  
120

ctggggtagc acaggctgct atgctcagca taggtgctcg ctctgctaca ctatccttc  
180

aaagtcgtgg ctta  
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<211> 164  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
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gtttggctgg atcattccaa cgatgatggg aaatctactc tctgaaggca gaatgaatga  
120

gaaatggcc agttctttct tgaagaggtt cagccctaac ctta  
164

<210> 17  
<211> 43  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
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43

<210> 18  
<211> 426  
<212> DNA  
<213> Rattus norvegicus

<400> 18

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attgaaagga tcagcagggt tagaccacat ggagctgtag ctggccacag ctaagactca  
120

gaagaccata ggctgacac aggatgtcag tcaatgtcac agaattggatt tgaacactct  
180

gtagtggact gtgtacggct aaacacaggg actcttctac aaccagggaa tgctggagct  
240

gttctctgtg aaggccacac cctgagtgt ccagtccttc cctgggctcc tcatatgaga  
300

gctaggcatt gtctgatgtg gtgaccctgc agggacagcc ctttgttctt gacagccaca  
360

gccttcagtg agcctggatt tctgtgtgc tttcctagga agttctccct ggatgactgc  
420

tgggtta  
426

<210> 19  
<211> 212  
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<400> 19

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cagtaagaac acggccagca tttcagagtt gctggacggg ggctctcacc ctgggagtct  
120

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212

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<211> 215  
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<400> 20

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120

actggctgga gaggagacag cgtcttcaca gttgtacttg tagccttcac aggtcaggct  
180

gcgtctgcc actcctgtcc attgtacgtg cgtaa  
215

<210> 21  
<211> 286  
<212> DNA  
<213> Rattus norvegicus

<400> 21

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ggctgggttac tcagcaggag tagctgagct gagctggccc tggaggcctg gagcctggag  
120

gccctggagt agggcccagg atgcagggtc taatgtctat ccccggcgct cttcttcccg  
180

actctaccat gggatgtaac tccaggaccc ctgccatctc cggtaacaaa agactgtggc  
240

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286

<210> 22  
<211> 227  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 22

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atgctgtgat ctctgaaggg acaactctaa aatcaaagtg ctggaagggt ggctccatcc  
120

tgagntnctc ttgcattgc aagtgttggt tttgtcctgt gccttatgct cttctctcat  
180

acctgcaaag gatgcatgta tacttgettc tcaactcctc ctgttta  
227

<210> 23  
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<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
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51

<210> 24  
<211> 83  
<212> DNA  
<213> Rattus norvegicus

<400> 24

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60

tetagaagac agtcagtgcc tta  
83

<210> 25  
<211> 322  
<212> DNA  
<213> Rattus norvegicus

<223>        unsure at all n locations  
<400>        25

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gcaactgcat tcatgggcta tgtactccca tgaggacaaa tatcattctg aggagctaca  
120

gtaattacaa acctattatc agctatccct tacattggga ctaccctagt cgaatgaatc  
180

tgaggaggct tctcagtaga caaagcaacc ctaacacgct tcttcgcatt ccacttcac  
240

ctcccattca ttatcgccgc ccttgcaatt gtacatcttc ttttctcca cgaaacagga  
300

tcaaataacc ccacanggat ta  
322

<210>        26  
<211>        178  
<212>        DNA  
<213>        Rattus norvegicus

<223>        unsure at all n locations  
<400>        26

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120

ggacagagaa cagttcaaac tcnngggagat gcaaagccgg tatgagcaac ctgcatta  
178

<210>        27  
<211>        275  
<212>        DNA  
<213>        Rattus norvegicus

<400>        27

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atgctgtctg ccatttgtct ttctgtcagt cactcttgct cccactccat ctgctcacat  
120

ctcattcttt cttctcaact tgttcacctc caccacactt ctgctgtgct tctgggtctc  
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ttgtctgtca gtctttctat ctgacttct ggaatttcta cctgcttttc tctctacctg  
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gccctacct gacttcatgt ttgacctga cctta  
275

<210> 28  
<211> 69  
<212> DNA  
<213> Rattus norvegicus

<400> 28

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<210> 29  
<211> 48  
<212> DNA  
<213> Rattus norvegicus

<400> 29

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48

<210> 30  
<211> 308  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 30

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ccttccact gtgcattaca acatggggcg gnttccact aactacaagg gacaggtgct  
120

gaagcacgtg aacggccagg atcagattgt gcttgggtctg tacgctgtg gggaggctgc  
180

ctgcgctca gtgcatggtg ccaaccggct tggagcaaac tctcttttgg accttgtcgt  
240

ctttggccga gctgtgccc tgagcattgc agaattctgc aggcctggag ataaagttcc  
300

tccgatta  
308

<210> 31  
<211> 221  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 31

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120

ttctgtcctg tggattcaa aacaaacttt ccttctgcag tgtgcacttg ggggcggttc  
180

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221

<210> 32  
<211> 186  
<212> DNA  
<213> Rattus norvegicus  
  
<400> 32

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aactctgcct acaggggtgt tgcattattga tagtgaatta tcatttcttg tgggtgtctc  
120

atccatgtct ataactttct tagaacatca tgaaatggtt accttactac atgatttata  
180

acatta  
186

<210> 33  
<211> 146  
<212> DNA  
<213> Rattus norvegicus  
  
<400> 33



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agagcacatg ctcttgcccc agggctctca ggctcactct cacctcatgt atttgtctc  
120

tgctcgtagg aaaatcatcg tcatta  
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<210> 34  
<211> 125  
<212> DNA  
<213> Rattus norvegicus

<400> 34

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120

catta  
125

<210> 35  
<211> 49  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 35

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49

<210> 36  
<211> 193  
<212> DNA  
<213> Rattus norvegicus

<400> 36

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ttcattggcc acggaacgac tacaaatagt ggcgaqatgc tgccctctgg tggcccgaaa  
120

cgttgaactc gggtgtatag gtggattgat tacaacagtc aactcccagg gtctgacttt  
180

ctaataccgcg tta  
193

<210> 37  
<211> 205  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 37

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agggacaata tcattgacct aaccaagact gatcgctgtc tccaggcccg aggttgaaga  
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aaggcctgag cctccagatt gcagggaag atccagtga agcaagantg cttctctgtc  
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205

<210> 38  
<211> 177  
<212> DNA  
<213> Rattus norvegicus

<400> 38

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tagggacaat atcattgacc taaccaagac tgatcgctgt ctccaggccc gaggttgaag  
120

aaaggcctga gcctccagag tgctctctgt tccagaagtc aatccaagaa gtgctta  
177

<210> 39  
<211> 157  
<212> DNA  
<213> Rattus norvegicus

<400> 39

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cagagttctg ggagaggaaa gctccccag gctattcct ctccaatta ttggcaatat  
120

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157

<210> 40  
<211> 413  
<212> DNA  
<213> Rattus norvegicus

<400> 40

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aggcttcac tgggcctgta agaactatga tggatgatg cagtcagact cagtagccca  
120

aggttatggc tcccttggca tgatgaccag tgtgctgatt tgtccagatg gtaagacggt  
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agaagcagag gctgcccattg gcactgtcac acgtcactac cgcattgtacc agaaaggaca  
240

ggagacgtcc accaatccca ttgcttccat ttttgcttg tcccagggt tagccacag  
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agcaaagctt gacaacaata ctgagctcag cttctttgca aatgctttgg aagaagtctg  
360

cattgagacc attgaggctg gctttatgac taaggacttg gctgcttgca tta  
413

<210> 41  
<211> 346  
<212> DNA  
<213> Rattus norvegicus

<400> 41

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tccttaccct cttgcctcta tagagaaagt gctgggattg caggcagatg acacacctgt  
120

ccaacaactg gttcataaag gcagatgcag ggtacttcac acacactggg ctqqqcaqct  
180

gggactgcc a gggagaggc cttagcatat atgaaagtgg acagggacag ctctgggggt  
240

taggcaggaa tagacaaagg tgacaagcct cagacctca gggacaggag tcctgtgag  
300

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346

<210> 42  
<211> 292  
<212> DNA  
<213> Rattus norvegicus

<400> 42

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120

tctgccaaag aataagaaca aatcaacct caaacagcag ctaaaatatg ccattccagat  
180

ttgtaagggg atggactatc tgggtctctg gcaatatgtt caccgggact tagcagcaag  
240

aatgtcctt gttgagagtg aacaccaagt gaagatcgga gactttggtt ta  
292

<210> 43  
<211> 239  
<212> DNA  
<213> Rattus norvegicus

<400> 43

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acagctaacc aagtattcac gtaccctgta ttctgtgggt tagctaagct cctttgagca  
120

gctctactag tgtggcctgg tctgtctcat gageccagtc acttctcact tcagctgggg  
180

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239

<210> 44

<211> 121  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 44

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ctttttgcgc cgttcttctt tcacttggca gaagaagtgt gccagcacat cccctacgtt  
120

a  
121

<210> 45  
<211> 117  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 45

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60

caggccagtg ccattattta ggcttgcagt ggcgggatta cttcaagcag tggatta  
117

<210> 46  
<211> 105  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
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60

gcccattgaca agccttcctt tcaccactgt cggacgacat gatta  
105

<210> 47  
<211> 52  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
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52

<210> 48  
<211> 442  
<212> DNA  
<213> Rattus norvegicus

<400> 48

gatctcgaga cggatagcct cattcagacg accatccgaa aggagttctc ccagtgcacg  
60

gtcatcacca tcgctcacag gctgcacacc atcatggaca gtgacaagat aatggctcta  
120

gacaacggga agattgtcga gtatggcagt cctgaagaac tgctgtccaa cagagggttc  
180

ttctatctga tggccaagga agccggcatt gaaaatgtga atcacacaga agctctagca  
240

gctgggttccg tggctggcgg gactataaga acagtttcta ttatttgctt tgggtttctg  
300

tgactgtgct ctaggtgcaa agacacatat ttgttcccg ttgctcaggc tgggcctcaa  
360

actctaaggt ccagcaatct ctggtctcag ccagagacct gtaaaaatag acacttcaaa  
420

gattatcatg aataaatatt ta  
442

<210> 49  
<211> 227  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 49

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gagtgtggcc cgccgggtcc tcbaagccct ggangggctg aaaatgggtg aaaaggacca  
120

agatggggcc gcaagctaac acctcaggga cagagagatc tggacaggat cgccggacag  
180

gtggcatgct gccacaaga agcattagaa caaaggatgc tgggtta  
227

<210> 50  
<211> 248  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 50

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acggacacaa gaggaatatc ccttgaagt gaaccaagtg gaaagaatga gctgtgagac  
120

tggatagtta tgggtgcctca agctgaccc tctgagtggg cggggctagc acccagtgt  
180

ccatcaagca aggtctatcc ttctgagtgg gcaggctagc actccagtgt ccagnnattc  
240

cagtctta  
248

<210> 51  
<211> 113  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 51

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acatcggaag gtactttggg aggntgttgg agtatttnt gattcaagcc tta  
113

<210> 52  
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<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
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atcataccta gtagtttgag cctctacct tgagaaatcc agatggatga agaaaagata  
120

gctaacagct accagagggt gcatttggat gaaggaataa catctaattgt tntacaggat  
180

aacnntaact gacaatta  
198

<210> 53  
<211> 166  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 53

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aggcaacacc tccttcagtc tggagnnaac tctaaatagt gtgaccatgt aggacagagt  
120

aaagggcagg gagtgaatta gagaagagtt ggnngtctgg ggatta  
166

<210> 54  
<211> 190  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 54

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atgggggattg gtttttcgat tgtcgtggcc tctgacaaaa gagaaaagat agaagagaac  
120

ggcagcatga gagtttttgt gcagcacatc gatgtcttgg agaattcctt aggcctcnag  
180

ttccgtatta  
190

<210> 55  
<211> 178  
<212> DNA  
<213> Rattus norvegicus



<223> unsure at all n locations  
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60

cagtgtgtg acgtnacttc taatagacga naattagana cagcctgctt gcccataaca  
120

ggaaagtgat cactgagatg atagcgtgac catttgatgg gccnccctag caacgtta  
178

<210> 56  
<211> 240  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
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gctcaacaac tacagaacgc acctcccggt ctctctgctc taagatgcta aatatgaaag  
120

ccagngtttc acagcccaga tcatccacng cactgcttta ctgattcgga agtttctctt  
180

gaggatactc cagatacacc tgagacatta tanatcatat atcaannngc acaaatatta  
240

<210> 57  
<211> 222  
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<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 57

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taccagtgtc gctgtaactg aagaaatgcc acccctggaa ggagatgatg acacatcacg  
120

catggaagaa gtagactagg cttcaccagn actatgtgtt tgatgcttac cttcattcct  
180

tctgatnata tattttccat gattttngnt ttatttttgt ta  
222

<210> 58  
<211> 112  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 58

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60

tcatatnaca atttatgntc ccttgtgtca ttgtgnccc attcctgagt ta  
112

<210> 59  
<211> 176  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 59

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gaagaaagct agnacaaatg cagaagaaag atgtctgac tgccttcat gttgngagtt  
120

tgtgagtgtg tgcattganc ctctgttcag atctgtgtct nnggtttagc cattta  
176

<210> 60  
<211> 91  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 60

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60

ggtgacacgg ggcttggnnn acacaacctt a  
91

<210> 61  
<211> 232  
<212> DNA  
<213> Rattus norvegicus

<223>        unsure at all n locations  
<400>        61

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60

aacactctat cacatcacan tgtggacatt cctccttgcc ctgggacact tcntctcgga  
120

gttgtttgta tttggnacag cggctcccac agttggtgtg ctggcaccct tgatggtagc  
180

aagttttctca atcctgggta tgctagttgg gctccggtac ctanaagcag aaccagtatc  
240

cagacagaag naaagaaatt gagggccancc ttgncagctc tgatacatca tggtnntcca  
300

cctttgctct ntttanncac tctctgtcct ta  
332

<210>        62  
<211>        274  
<212>        DNA  
<213>        Rattus norvegicus

<223>        unsure at all n locations  
<400>        62

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60

acaatatcat tgatctaacc aagactgac gctgtctcca ggcccaggga tgaagaaagg  
120

cctgagcctc cagtggnnnn nnnnnnnnnn nncaccagga ctctagcacc accatttcct  
180

gtccatggag catcctgaga caaattctgc gatctgatgt ccctcctctg tcacagaaaa  
240

gtgcaatcct gtctctccag ctcttcoccta atta  
274

<210>        63  
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<212>        DNA  
<213>        Rattus norvegicus

<223>        unsure at all n locations  
<400>        63

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tatctgctta  
70

<210> 64  
<211> 280  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 64

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60

ggccacttac tataggtnat aaggctactg tgnccctcag caggnccaag cactgcatgt  
120

agggaaaggaa ggggtccagga gctgtccaga ggcgcattta gctctccttc tgtttaggaa  
180

ataaagacag agtgtgcaaa gagaggcagt cagcactccc tcntgctcag ggaaccctgg  
240

acagctgtgg acaggcatgg ggtannncta ctcttcatta  
280

<210> 65  
<211> 202  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 65

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60

agacagacag gccatcagtg tggaatgtcc gagaaggcga ttgaaaagtt tatcagacag  
120

ctactcgaaa agaatgactc aaagggacca cccagttacc ctctccttat agccatgtat  
180

aagtcnnctn actctgggat ta  
202

<210> 66  
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<212> DNA  
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<223> unsure at all n locations  
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ggccaatgac accacgttng gactagcagc tggggtcttt accaggacat tcagaggcgc  
120

acaggtggcg gctgagctnc aggcgcnaa cgtgctacat ta  
162

<210> 67  
<211> 57  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 67

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57

<210> 68  
<211> 131  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 68

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60

tgtagtaaan agagaatgtc ttagtgtggt tgtgagtgac agtgaaatc aatgncnnta  
120

aaaggacatt a  
131

<210> 69  
<211> 77  
<212> DNA  
<213> Rattus norvegicus

<400> 69

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60

gagaagacac ctgttta  
77

<210> 70  
<211> 353  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 70

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60

acactttgga actggtgggtg tagccctcag tatcatcttg aacaccagtt ggggtcctg  
120

cagtgcctt tgtgcttcac tgggttttgg acgaagcagt gagggccctg ctctctgtca  
180

tgtagtgact gtagtggtgct gcgtgactat ctggtcaag tcccgtaag aagatgaaag  
240

tccacagcaa aaggcangtt cgattcccag tgctgctca cagctgctg tatcttgatc  
300

tgcaggggac cctgtgcctc tggtttctgt ggatacaaat gtgtatgcc tta  
353

<210> 71  
<211> 187  
<212> DNA  
<213> Rattus norvegicus  
  
<400> 71

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60

gctctctaata caccacgacc atcacgatga attctgcctt atgccttgac ttgggtcatt  
120

tccctgaga ttcatactgt gattcccgt gtattcctag ccttgcat tctctgacat  
180

gccttta  
187

<210> 72  
<211> 116  
<212> DNA  
<213> Rattus norvegicus

<400> 72

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60

atctgagccc caatgctctc tacacaccag aattctatct tttagcagtg acttta  
116

<210> 73  
<211> 147  
<212> DNA  
<213> Rattus norvegicus

<400> 73

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gttattagca gaatgaagga tggcctcaaa cgaagaaaga tgcatacccc tcgaggctct  
120

tcagaatgct ggatagaggc ttactta  
147

<210> 74  
<211> 195  
<212> DNA  
<213> Rattus norvegicus

<400> 74

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ccctgtgga gagggagaaa gaaaggggag ccgctgacct gcagggatac agaccttccc  
120

cacagcctgg cagccgcccg tttgttgcag ottattatca gactgtgggc tatcatagtt  
180

catgctcggt totta  
195

<210> 75  
<211> 190  
<212> DNA

<213> Rattus norvegicus

<400> 75

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60

ttgaacaact tattttcctt gtatcgatag aggggtgctta  
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<210> 76

<211> 395

<212> DNA

<213> Rattus norvegicus

<400> 76

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ctgcctggtc tgtctcatcc tgtcttctga gagcgtgggt cacagacctt gtgtctgagt  
120

gaaggggaacc cagggtcaga ttccgtttct ctgcttctgt ctttttctca gcagcagggg  
180

aggaacaggc cttttgtgca catacaacag atgaagccca tgatgagtct gtgggaaaca  
240

ccaacactca tgcacctgt gggtgacct cctacacag cgcagagcag agagagcccg  
300

ggaggtgctg caggcttcac tgagctttcc ttgccagac tggcaaccga ctttgctctc  
360

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395

<210> 77

<211> 56

<212> DNA

<213> Rattus norvegicus

<223> unsure at all n locations

<400> 77

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56

<210> 78

<211> 164



<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 78

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60

gccttacaac atcgctcaca tggaggccaa gggagcagcc gtgaaagtcg ccatcaacac  
120

gatgaccagc gcagatttgc tcagtgcctt gagagcggtc atta  
164

<210> 79  
<211> 207  
<212> DNA  
<213> Rattus norvegicus  
  
<400> 79

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60

tggggccttt gggctgccca ccaactgttgc ccaegtggat ggtaaaacct acatgctatt  
120

tgggtctgac cgcattggagt tgctagctta cctgctagga gagaagtgga tgggcctgt  
180

gcccccaacc ctgaatgcc a gacttta  
207

<210> 80  
<211> 112  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
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60

atgacacatc ccgggagttg ccacactagc aagagcctgg ctgnttccct ta  
112

<210> 81  
<211> 183  
<212> DNA

<213> Rattus norvegicus

<400> 81

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gcacaattcc tgtgtgagtt ggaatgatgt atttgcttac caaagctcaa gatcatccac  
120

aggacaacca cagagtccac atcaaaggag agaggttqtc tttgttgatc cagactggcc  
180

tta

183

<210> 82

<211> 118

<212> DNA

<213> Rattus norvegicus

<400> 82

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60

ttgtctgacc tccatgggag attttgtttc tggctaaaat aaaggctaaa taagctta  
118

<210> 83

<211> 264

<212> DNA

<213> Rattus norvegicus

<223> unsure at all n locations

<400> 83

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tgtgggttaga tggggacagg agtttttctc ccttgctttt ctggggatgg agaagggtta  
120

aaccaagncc atgttgtctg gagaggtgca ccagggggtg aaggggtctg agaggccttc  
180

cacctaccct cagagagcct ggggttctca ggggctcagt ggggcagcac ttttgttat  
240

tgtcgtgata agttcgtagc attta  
264

<210> 84  
<211> 60  
<212> DNA  
<213> Rattus norvegicus

<400> 84

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60

<210> 85  
<211> 136  
<212> DNA  
<213> Rattus norvegicus

<400> 85

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60

tagccctggc tgtcttggaa ctctgtagac tgggctggct tctgactcag agctctgctt  
120

gcctctgctg ggatta  
136

<210> 86  
<211> 85  
<212> DNA  
<213> Rattus norvegicus

<400> 86

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60

ctaagatgca tataaagggg agcta  
85

<210> 87  
<211> 145  
<212> DNA  
<213> Rattus norvegicus

<400> 87

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60

accttcggtg gcttcttctt cccaagggc accgatgtgt tccctatatt aggttctctg  
120

atgacagacc caaagttctt ccta  
145

<210> 88  
<211> 346  
<212> DNA  
<213> Rattus norvegicus

<400> 88

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60

ctcactaagt gacaatacct tccctgcaga cccactaata cacgcttctt tcatatccta  
120

ctcaggaagt gaccatgtca actgagccct tetgactgac tgtccgactg tctttgtcaa  
180

ttgccactct catgtccctt cctctcttca ctgccacact cctccatcag catgtagaga  
240

gtgtcttttt caacttttgt ctttcttttt gtggacaaca tttctgcaaa agagcaaggg  
300

tctggaactt gccctggcct ctgacccctg gatgtgtgtg ctgcta  
346

<210> 89  
<211> 205  
<212> DNA  
<213> Rattus norvegicus

<400> 89

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ggagacccca tctcaaaaaa acaaaccaac cctgccctcc agtaaccgtc caggagagtg  
120

tggtgggtgca ggtgagccg ctctataccc agcctctgag aactttgtcc tctcggcaac  
180

ttgatagcct gcggttggtt ggcta  
205

<210> 90

<211> 211  
<212> DNA  
<213> Rattus norvegicus

<400> 90

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60

acctgtatca gagagaattc tgggggggctt cgaggcaccc tacactccat gctccagttt  
120

tcagccgccc ccacctcacc cccatctctt tagtcttacc tgagggttggg tgacagcctg  
180

cctatgtttt ctctgttgtc ttctaccct a  
211

<210> 91  
<211> 166  
<212> DNA  
<213> Rattus norvegicus

<400> 91

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60

cggttggcgt gtaggtatcg gattagtcag ccgtagttta cgtctcggca gatgtgggtg  
120

actgatgaaa atgctgttat ggtatcagac gtgtagtgta ttgcta  
166

<210> 92  
<211> 148  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 92

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tgagggtttcc tcattgcatg cgataggggtg atcatgattt cccactaac tcattttctg  
120

gtcggcctct tllalanage tgcgccta  
148

<210> 93  
<211> 52  
<212> DNA  
<213> Rattus norvegicus

<400> 93

gatccatgga ggtggactaa taatagcgga gcacaccct atagtgtgac ta  
52

<210> 94  
<211> 43  
<212> DNA  
<213> Rattus norvegicus

<400> 94

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43

<210> 95  
<211> 228  
<212> DNA  
<213> Rattus norvegicus

<400> 95

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60

cactgtgaat ggaccaagga aacaggcctc tggccctgag cgcaccattc ccatcaccg  
120

tgaagagaag cctgctgtca ctgcagcccc taagaagtag attcccttcc ctggttgc  
180

ttttaagac aaggaagttt cccatcagcg aatgaacatc tgtgacta  
228

<210> 96  
<211> 103  
<212> DNA  
<213> Rattus norvegicus

<400> 96

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60

ccagtgtggt tcttgetggg cttttagegc atcggttgc cta  
103

<210> 97  
<211> 343  
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<213> Rattus norvegicus

<400> 97

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ccccctgcct tgaaagccct tctaagctcg gcctgagaac tctcctcac ccttcaccct  
120

tcccagccca aggctccgag ggtcccatca gtgctgatga gtctggcctt tgagcttttc  
180

ttgacaattc ctaatggttc taaagcctgg agccccgga aactgtgagc taaggagaca  
240

tagcacaaaa tcataaatga gttgcgggga gaggctggaa acagtgtgca agaaatacag  
300

gccagggggt ggggatttag ctcagcggtg gagcgcttgc cta  
343

<210> 98  
<211> 50  
<212> DNA  
<213> Rattus norvegicus

<400> 98

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50

<210> 99  
<211> 48  
<212> DNA  
<213> Rattus norvegicus

<400> 99

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48

<210> 100  
<211> 72  
<212> DNA  
<213> Rattus norvegicus

<400> 100

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60

cgatcatacc ta  
72

<210> 101

<211> 200

<212> DNA

<213> Rattus norvegicus

<400> 101

gatccctgcc atctgagaca tccccacga gatgcacatt tcttttttgc ccccatcga  
60

acactcaaac accctgtatt catctaaggg tctgggagag tctggggtgt tctgggctg  
120

ttcgggtattt ttgcatcc atgacgcagt gagggcagcg cggcaggaga gaggcattc  
180

tggaccatgg aagctcacta  
200

<210> 102

<211> 143

<212> DNA

<213> Rattus norvegicus

<400> 102

gatccgagag aagcaagcag caaacaaaaa cttccctttc tctgtgcatg acaaccgcca  
60

ctgttttgag aactccggat actactttga ctctggcttg gggcgaagga agtgcacccc  
120

agatcaaaaag caacacattt cta  
143

<210> 103

<211> 343

<212> DNA

<213> Rattus norvegicus

<400> 103



gatccgaagc aggtagccct gagtcattat ggcgctctct gacttcagca atcagcagcc  
60

cttacaatcc tgcaaggatt ccaccaagt cagcagcagt cacgggcctc cttcactgat  
120

gtgtgttctg cctgctcagc cctgccaca gaggcctgga ggtgtgggag tgtggcctaa  
180

gcacagtctg ccataccttga ccgcagacct cttggacca ccccaactcc ctccagacac  
240

tggtaagaga agccttcctg caacatgtcc tgtcctcagg aggtgagaca gcagagtgtc  
300

tccattcact cgatgacccc atttttgctc ttcctttggg cta  
343

<210> 104  
<211> 41  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 104

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41

<210> 105  
<211> 67  
<212> DNA  
<213> Rattus norvegicus  
  
<400> 105

gatccggagg aactacagag acatggatat ctacgtcaca gccaatggca ttgatgatct  
60

tgctcta  
67

<210> 106  
<211> 192  
<212> DNA  
<213> Rattus norvegicus  
  
<400> 106

gatccgggag cattcccttt gcagtgtcat agataccgaa gtaggcagca cggtagatga  
60

taatgcctg cactgacaca ttaaagcctt ggtacaggcc cttaatccca tcagatttgt  
120

agatcttaac caggcagtca ccaaggcctt tgaattccct ttcagctcca gctttgcccc  
180

catcagctgc ta  
192

<210> 107  
<211> 97  
<212> DNA  
<213> Rattus norvegicus

<400> 107

gacccatga tctgaacgg cagcctgtgc tctctgtcta ccagccagag gacaacctg  
60

gaggctctcc cgagactccc tgtactcacc cctgcta  
97

<210> 108  
<211> 42  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 108

gacccatcg tgacctgttg gacangaagg gagtgtttgc ta  
42

<210> 109  
<211> 67  
<212> DNA  
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<400> 109

gacccatct taaagtagaa tgaaatctag ggttggggat ttagctcagt ggtagagcac  
60

ttgcta  
67

<210> 110  
<211> 207  
<212> DNA

<213> Rattus norvegicus

<400> 110

gacccacc gtggaggacc actactatga aggtggcata ggcgaggcag tatctgctgc  
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ggtagtgggc gaacctggag tcacagtcac togcctggcg gtcagccaag taccacgaag  
120

tgggaagcca gctgagctgc tgaagatggt tggattgac aaagacgcca ttgtgcaagc  
180

tgtgaagggc cttgtcacca agggcta  
207

<210> 111

<211> 271

<212> DNA

<213> Rattus norvegicus

<400> 111

gaccccat gacaaggga caggaagaaa tgataatatg aatggtggat catgaatatc  
60

ttcacaatct ttccctgtga tgaattagca tctccagctc tctgcctata tagtagatat  
120

ggaccacaaa gaagtaaata atggtgtgca atttttgtca aggaatcttt agaggccac  
180

acaattccaa attctcactt catgtcagag attgaatgat tgaaaagctt tctgcagtaa  
240

attatttacc ctattttctt agcatgtact a  
271

<210> 112

<211> 415

<212> DNA

<213> Rattus norvegicus

<400> 112

gaccccaaa gtggtcagg aacactttgg caaaggcaaa tcaaaagact tccaactgtt  
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cggtctctct cttgggaaag acctgtgtgt taaggattct gcctttgggc tgttacgggt  
120

gcccccaagg atggactaca ggctgtacct cggccacagc tatgtcactg ccattcgaaa  
180

tcagcgggaa ggcgtgtgcc cggagggctc catcgacagc gcgccagtga aatgggtgtgc  
240

actgagtcac caagagagag ccaagtgtga tgagtggagc gtcagcagca atgggcagat  
300

agagtgtgag tcagcagaga gcactgagga ctgcattgac aagattgtga atggagaagc  
360

agatgccatg agcttggatg gaggtcatgc ctacatagca ggccagtgtg gacta  
415

<210> 113  
<211> 152  
<212> DNA  
<213> Rattus norvegicus

<400> 113

gatactctca gaacaccagt ctgtgccaat gaggagcag catggcctct gagtgaggag  
60

gtgctgggtg taagaccaca cctccagag ggaagaaagg ctctctctg ggttgtgcgc  
120

tgactttctt atactgctcc cttgtgccac ta  
152

<210> 114  
<211> 295  
<212> DNA  
<213> Rattus norvegicus

<400> 114

gatactgaag agcaatgagg gacgtgccct ttccgcgcca gcaccagcgc aatgtcaagc  
60

ttatgaggca gatgctaatt gacgtggccc cccagtcac ccaactcccc agccacatca  
120

tccctgtgcg gggtgctga tgctgctaaa aacacagaaa tctgtgatga agttgatgac  
180

caggcataat atctacgtcc aggcatttaa ttacccaaca gtgcctcgtg gggaggagct  
240

cctccggatc gccccaccc cgcaccacac accgcagatg atgaacttct tctta  
305

<210> 115  
<211> 76  
<212> DNA  
<213> Rattus norvegicus

<400> 115

gaccccttgcc tgccactatt tctgtgatct caatgttttg tttctcctg acttctgaca  
60

ccaagctgat ttgcta  
76

<210> 116  
<211> 290  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 116

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60

cctgaagccc tgaggagag atttgaggag cactaccagc ggcatatgaa ggactgccct  
120

gtgaagtta gagcagagct ctgagacact tccttgtgtc tgaaattgga gtagtctcca  
180

atttatcctt cagtttttct tgttttgaat tcagtagaag tagaagtctt ttgaagactg  
240

atgggtttaa ttcattctgg ttttttaaac naacntttat tttaatctac  
290

<210> 117  
<211> 228  
<212> DNA  
<213> Rattus norvegicus

<400> 117

gatctaacca agactgatcg ctgtctccag gcccgaggat gaagaaaggc ctgagcctcc  
60

agtgtgagt ggagacttct caccaggaact ccaqcatcac catttctgt ccatggagca  
120

tcttgagaca aattctgcga tctgatttcc atctctcttc acagaaaagt gcaatcccgg  
180

tctctccagc atcttcccta gttaccocagg acaacacatc gagaatta  
228

<210> 118  
<211> 93  
<212> DNA  
<213> Rattus norvegicus

<400> 118

gatctactta aaaactgctt cgtgacaaaa accacacctg aagaaatttt aagaatttgg  
60

cacagttagt cacttttgtt caccocggaat cta  
93

<210> 119  
<211> 145  
<212> DNA  
<213> Rattus norvegicus

<400> 119

gatctacacc acagtttcta acagtagcaa cattacagcc atgaagtagc agtgaaaata  
60

acttgatggt gggggggaatc accagaatat gaggaactgt attaaagggt cgcagcattc  
120

ggaagggtga gaagccactg ggcta  
145

<210> 120  
<211> 34  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 120

gatctacatt ggaaggcgtt gacaactanc acta  
34

<210> 121  
<211> 45  
<212> DNA  
<213> Rattus norvegicus

<400> 121

gatctaggcc cctttcctcc tctaaccctc tttctctcct gcta  
45

<210> 122

<211> 363

<212> DNA

<213> Rattus norvegicus

<223> unsure at all n locations

<400> 122

gatctcattg gtgcagggac agagacaatg agcacaacat tgagatatgc tctcctgctt  
60

ctgatgaagt accncacatg tcacagctaa agtcaggaa gagattgacc gtgtgattgg  
120

cagacatcgc agcccttgca tgcaggatag aaaacacatg cctacacag atgccatgat  
180

tcatgaggta ncagagattc attaactttg tcccgaccaa cctgccccat gcagtgcct  
240

gtgacattaa attcaggaac tacctcatcc cgaagggaac aaaagtgtta acatcactga  
300

catcagtgtc gcatgacagc aaggagtccc ccncccaana gatgtttgcc cnanccactt  
360

cta

363

<210> 123

<211> 132

<212> DNA

<213> Rattus norvegicus

<400> 123

gatctcaggg gaggtatgct taaggccaga gctcttctc agtatttgat tttccagtg  
60

tttggttttt taaaaactga caggtgctac attctatct gttggtttca attctgccat  
120

atttcattgtc ta

132

<210> 124  
<211> 89  
<212> DNA  
<213> Rattus norvegicus

<400> 124

gatctcagca gcctgggtgt cacagtagaa taagaatggc tggccttaac cttccctgtg  
60

agtgacgtga atgaatgcci acclygcta  
89

<210> 125  
<211> 206  
<212> DNA  
<213> Rattus norvegicus

<400> 125

gatctcattg atcacagcct ggggtgtaggg catcttcatg tggctctcat actgaggctg  
60

tcggttcctg ccgatcacct gctcaatttc ctcatggacc ttggcctcca catctggatg  
120

cttcatgagt agaaggaagc cgtagcgtag tgtggagctg actgtctcag acccagcaaa  
180

gaagaggctt agtgttgtca tcacta  
206

<210> 126  
<211> 71  
<212> DNA  
<213> Rattus norvegicus

<400> 126

gatctcccag atcaagtcct ctttgccatc tccatttcga gccacaacag catgagaagg  
60

gatccgggct a  
71

<210> 127  
<211> 129  
<212> DNA  
<213> Rattus norvegicus

<400> 127



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60

tttaacgtgt ggccctccagg tgctttctta ctgtttgcc aattgagct gcctcaagac  
120

aagg tacta  
129

<210> 128  
<211> 247  
<212> DNA  
<213> Rattus norvegicus

<400> 128

gatctctccc gagagacaca gccagaatac agcaaataca taggcaa atg ccagcagcaa  
60

accaccgaac tgaaaacggg acccccg ttt aaggaatcag agaaaggact ggaagagctt  
120

gaagggggctt gagaccccat atgaacaatg ccaagcaacc agagcttcca gaaactaagc  
180

cactacccaa agactgtaaa tggactgacc ctgggctcca acctcatagg tagcaatgaa  
240

tagccta  
247

<210> 129  
<211> 347  
<212> DNA  
<213> Rattus norvegicus

<400> 129

gatctctgcc tacatgaaga gcagcgccta cctctcaaca cctatat ttt cgaagttggc  
60

ccaatggagt aacaagtagg cccttgctac actgggcact cacagagagg acctgtccac  
120

attggatcct gcaggcacc tggccttctg cactgtgggt ctctctcctt cctgtcctt  
180

tctccagctt tgtcagcccc atctctctca cctcacccca gtcattgcc catagtcttc  
240

attctcccca ctttctttca tagtggtccc cttctttatt gacaccttaa cacaacctca  
300

cagtcctttt ctgtgatttg aggtctgccc tgaactcagt ctccta  
347

<210> 130  
<211> 431  
<212> DNA  
<213> *Rattus norvegicus*  
  
<223> unsure at all n locations  
<400> 130

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60

accgccttgg caaaagacag gaccaaaaac cggtaacttgc ctgcctttga aaaggtgttg  
120

aagagccatg gccaagacta ccttgtaggt aacaggetga cccgggtaga catccacctg  
180

ctggaacttc tctctatgt tgaagagttt gatgccagcc ttctgacctc ttccctctg  
240

ctgaaggcct tcaagagcag aatcagcagc ctccccaatg tgaagaagtt cctgcagcct  
300

ggcagtcaga gaaagcttcc cgtggatgca aaacaaatcg aagaagcang gaagattttc  
360

aagtttttagc ggagctgcac tgtccaattt ctttatgctt tgcanaaaat gagaagcaat  
420

tgttgatcct a  
431

<210> 131  
<211> 180  
<212> DNA  
<213> *Rattus norvegicus*  
  
<400> 131

gatctggatg aaatagttct ccattacctt tacattcccc ctggggagaa agaggcaagt  
60

cttgccaaaa tcaaggacaa agcaaggaa cgttaacttct ctgcctttga aaaggtgttg  
120

aagagccatg gacaagatta tctcgttggc aataggctga gcagggctga tgtttaccta  
180

<210> 132  
<211> 156  
<212> DNA  
<213> Rattus norvegicus

<400> 132

gatcttactg tgcacagctt tagatcatga tgtttagcag attgtaactt ccattcatga  
60

gaagaaactg cacaaaccat ctcattcctg tcttatcttt attgtattgg aagctttctt  
120

taagttacca tattttagag cgttgtagt gcccta  
156

<210> 133  
<211> 187  
<212> DNA  
<213> Rattus norvegicus

<400> 133

gatcttcagt taattcagtc agctatggat aactgtacc cacaaagcca gcctcagaaa  
60

gctctgcaac aatgaagtat tttgactaaa tgttgaccgt acttattggg agggtaacat  
120

gttttctaag gcttctgtgt taattcatat agacatgact catgaggaat tgctgggatg  
180

ccatcta  
187

<210> 134  
<211> 295  
<212> DNA  
<213> Rattus norvegicus

<400> 134

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60

gttcctgtgg gaaaggcccc agatacacac tccagagcta actctgaaac gtcaagaaat  
120

caaagccag aatctcgtgt aggcgaatgg agactcccca aaggacacga aacagctgtt  
180

aaagtagcgg gcagtgtgtc cgagaagctg cctccagca gctgtcat ggacagagct  
240

gaagcagcca gccttgaca gtggcaggc cagaggact ggaagtgggt gtcta  
295

<210> 135  
<211> 93  
<212> DNA  
<213> Rattus norvegicus

<400> 135

gatcttgga aggggaatgg tcagcatcag ccttgtcct cagcctgtgc ttgagtcct  
60

tgtcccatc cctcacactt tccctccatg cta  
93

<210> 136  
<211> 156  
<212> DNA  
<213> Rattus norvegicus

<400> 136

gatcttgaga ggtgccctgg gatgaatgcc gtttacagtg tgcattcct ttgaggtgtg  
60

ttggaaaagt gcagcgaatt ttaacgtatg tgatccgcca tgctgtgaaa aactattgg  
120

gatacctccc ctgtgacggt attggagggt tggcta  
156

<210> 137  
<211> 73  
<212> DNA  
<213> Rattus norvegicus

<400> 137

gatcttggtc atcacatgac ctcttgcggt ggtcacaggg agtaaaaatg tgcctctgc  
60

ctgttgctcag cta  
73

<210> 138  
<211> 137  
<212> DNA  
<213> Rattus norvegicus

<400> 138

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60

ttagaataag gtgatttttg tttagccac agactcatgg gagtagatta gtgtaagtta  
120

ggatgaactt cacccta  
137

<210> 139  
<211> 125  
<212> DNA  
<213> Rattus norvegicus

<400> 139

gatccaggct ccagttgtca tggctgcttt gatgagccct tccccgaaga cttgcttgag  
60

tttgggctgg agttcaaagt tctgcagccc tccgtgcaca gagatgagaa gtttggaag  
120

ctcta  
125

<210> 140  
<211> 103  
<212> DNA  
<213> Rattus norvegicus

<400> 140

gatccatgga ggtgcactgg ttataggcat ggcttcattg tatgatggct ccatgctggc  
60

agccatggag aatgtagtgg tggtcactat ccaataccgc cta  
103

<210> 141  
<211> 172  
<212> DNA  
<213> Rattus norvegicus

<400> 141

gatccaacca caaaccaca gggtagacaca ctggatgtct ccttcctcta cctggagcct  
60

gaggaaaaga aactgggtggc cctgcctttc cctgggaagg aacagcgctc ccttgagtgc  
120

ccggggcccg aaaagcaaag aacccctga tgcctcccgc tgagactcac ta  
172

<210> 142

<211> 238

<212> DNA

<213> Rattus norvegicus

<400> 142

gatccgtgct ggccacaccc agagcaccaa ggatggggag ctcaggccat atggccaagc  
60

atgtgtggat gacagcaaag gtcagaagct actgcctgcc cctctggttt agatggttgc  
120

tcaggagccc agacttcgac tcatggtgtg ccaggaggag ctggggacaa caggggggtcc  
180

cttcccaggc ccatctgctg cccacactg atctgcctgt cttttctgct gctctcta  
238

<210> 143

<211> 104

<212> DNA

<213> Rattus norvegicus

<400> 143

gatccgtatc tggctgtagc ttcgctcctc agcaaacaga gcgcccataa aagcccataa  
60

ggatgtccct ccgattatgt ccacggggat gccacattct gcta  
104

<210> 144

<211> 178

<212> DNA

<213> Rattus norvegicus

<223> unsure at all n locations

<400> 144

gatccgggac agtgcagggc agaagggcac tgggaagtgg acggccatct ccgcgctgga  
60

gtacggcatg cctgtcacc ctcacggaga agctgtcttt gctcgggtgct tgtcttctct  
120

gaaggaggag cgagttcagg ccagcagana gctgaagggc cccaagatgg tccagcta  
178

<210> 145  
<211> 157  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 145

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60

ccgggatcag ctgatagaca tgaagcgct gnaggtaagc ctgaggcn cn ggcaccaatt  
120

tgtctttgac taagaaaaaa ggaatangaa cactcta  
157

<210> 146  
<211> 207  
<212> DNA  
<213> Rattus norvegicus

<400> 146

gatacctccgg gttatagatc aagagcttca tgggggttagg atggcatcct gccaaaatat  
60

ctccgggtggc tggatcaaca gtcagggttat ccactaaggt gccagctga attaccttca  
120

ctggagttaa atcccaatta ttgtgttttt tcattatgtg aatgttctta gctgttacat  
180

cagctacata gacatacttc tgggtcta  
207

<210> 147  
<211> 453  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations

&lt;400&gt; 147

gaccccttagc ccatgcagca gtgttctttc cgttcgtgtt ttccaggaca gtctgggtgt  
60

tcacaaaggc tacgtctccc ttctcaacga ggcactggaa agccctgtga taaccattat  
120

atccctctct gttgttcgga gcacattttg ctggggccaat acacaggtca cagaggggtg  
180

aattcttctt atagccagga gcacagcctt gactgaaaaa ttcacgaac ttgcagtgg  
240

tgatcctgct gaacagcagg cccatagga tggtccagcc ggcgggtctg tctactccag  
300

tatggcagga cttcttgcc ttcaggttgt tccagttgat gctggagtct gatgccttca  
360

ccacagccac ggcataatac cctttaggaa agacatctga ttgtgggttt gtacacgaag  
420

agatatcata gttctctgcc atgaacggca cta  
453

&lt;210&gt; 148

&lt;211&gt; 140

&lt;212&gt; DNA

&lt;213&gt; Rattus norvegicus

&lt;400&gt; 148

gatctatttc ttcacccctt gttctataca atagaatgcc tctctgtcct gaagtcagtc  
60

caagaaatgc ttaatgggtt cctgtattct ttcttccctgg attactcagt gctgagtgga  
120

gacttctcac caggactcta  
140

&lt;210&gt; 149

&lt;211&gt; 258

&lt;212&gt; DNA

&lt;213&gt; Rattus norvegicus

&lt;400&gt; 149

gatctacgca accgactcgg gcagtaccgc aacgaggtaa acaccatgct gggccagagc  
60



acagaggagc tgcggtcgcg cctctccaca cacctgcgca agatgcgcaa gcgcctgatg  
120

cgggatgcgg atgatctgca gaagcgctg gcgggtgtaca aggccggggc acaggagggc  
180

gccgagcgcg gtgtgagtgc tatccgtgag cgcttggggc cactgggtgga gcagggtcgt  
240

cagcgcacag ccaaccta  
258

<210> 150  
<211> 98  
<212> DNA  
<213> Rattus norvegicus

<400> 150

gatctagaag gcaagagtaa tctcgggtgct gacgctccac atcagaacgg tgaatgccac  
60

cctaatagaga agggctctgt cagcatggac ctggacta  
98

<210> 151  
<211> 64  
<212> DNA  
<213> Rattus norvegicus

<400> 151

gatctagatg acacggagga gccccaggac ctccctgag gtgatttcac ccttgggtgcc  
60

acta  
64

<210> 152  
<211> 136  
<212> DNA  
<213> Rattus norvegicus

<400> 152

gatctccaca tcagtactac aatgggtatg agaaaggcct gcaagctttc tccatggaca  
60

aacacctggg ccaaggcttc gctccgcagg tagatatttt cgatcttttc tggagctatg  
120

tactctcctt gggcta  
136

<210> 153  
<211> 132  
<212> DNA  
<213> Rattus norvegicus

<400> 153

gatctccgga ggtgcggtgc ctctggttgt aagaccagct ttgaagcact cctacagagc  
60

catctgagca gaggggcctg gcactccagg caggcgagcg atgctcaagc ttgttaccag  
120

tctggtctcc ta  
132

<210> 154  
<211> 218  
<212> DNA  
<213> Rattus norvegicus

<400> 154

gatctccacc gaactggtga agagcaagct caggagagacc actggggcag cctgcaaata  
60

tggggtaagc aactacatgt gtattcccag tccctgtcta aagatagaga cgatcatgtg  
120

ccatagctgc tcacgtctct gtgagctgac ttctcccat cctaagtcct cctcagcttt  
180

cctaaacacc tcattccactc ccttctctcc taagccta  
218

<210> 155  
<211> 124  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 155

gatctccatc agaaacacaaa atgatcagag agactgagtc ggggttcagc aatcccatgt  
60

tactggettc gttcagaatg aaaattgctc tcagcagncd tcattgatat ttgtgcctcc  
120

acta  
124

<210> 156  
<211> 218  
<212> DNA  
<213> Rattus norvegicus

<400> 156

gatctccccc agcagcagct ccaccacaat cagaagcttg tgcaccgtct gtttgaagcc  
60

aactgctgtg tgctgtggtg cctttcgaag ggcattggtc atcgttctcc gggcttcaga  
120

gtactccagt tggatagcct tgattcgccc tgtgtagtag aggtacctgg cccactcatt  
180

gttggttagcc tgttcgggga acacagactt ggacacta  
218

<210> 157  
<211> 43  
<212> DNA  
<213> Rattus norvegicus

<400> 157

gatctcattt taacccgtaa ccagtcctata tgtgtttgga cta  
43

<210> 158  
<211> 357  
<212> DNA  
<213> Rattus norvegicus

<400> 158

gatctgaagc aggaagactt ccagctgctg tgccctgatg gtaccaagaa gcctgtaacc  
60

gagttcgcca cctgccacct ggcccaagct ccaaaccatg ttgtgggtctc acgaaaagag  
120

aaggcagccc gggttagcac tgtgctgact gcccagaagg atttatcttg gaaaggtgac  
180

aaggactgca ctggcaattt ctgtttgttc cggctctcca ccaaggacct tctgttcaga  
240

gatgacacca agtgtttgac taaacttcca gaaggtagca catatgaaga gtacttagga  
300

gcagagtact tgcaagctgt tggaaacata aggaagtgtt caacctcacg actccta  
357

<210> 159  
<211> 47  
<212> DNA  
<213> Rattus norvegicus

<400> 159

gatcttggcc ttcaagttct cgatggtgtc actgggctcc acctcta  
47

<210> 160  
<211> 113  
<212> DNA  
<213> Rattus norvegicus

<400> 160

gatcttatca caccagccag caaagtaccg gaaggctctgg atggacatgc ccacgtgcgt  
60

cttcagggcc agcgtgtaga cggcacctgc atccagggcc tcaatggtgg cta  
113

<210> 161  
<211> 163  
<212> DNA  
<213> Rattus norvegicus

<400> 161

gatcttggat gatgacaatt ttctgggagc tgagaatgcc tttaacttgt ttgtgtgtca  
60

gaaggacagt gctgccacca ctgatgagga ggggcagcac ctacaggagg ttggtctctt  
120

ccacctgggc gagtttgtca atgtgttctg ccattggtcc cta  
163

<210> 162  
<211> 180  
<212> DNA  
<213> Rattus norvegicus

<400> 162

gatcttgggtg accatgctac cctgaagagg tccccaggag attgcaagag tgccccaact  
60

acagaggaga ctgcaggct gtctcaggcc atgatggctt ttactactga cctgttctcc  
120

ctgggtggccc aaacatccac cagctccaac cttgtcctgt cacccttag tgtggcccta  
180

<210> 163

<211> 179

<212> DNA

<213> Rattus norvegicus

<400> 163

gatcttaact gcagattcta cacatttctc atcctcta at ggttctctt ggctgccagg  
60

ctgaagaaac ttcttcaactg tggggagggtt gctgactctg gttctcaggg ctttcagcag  
120

aggggaagttg gccaaagcgc tgggggtccag ctcttccaca tggtagagaa cttgaacta  
179

<210> 164

<211> 217

<212> DNA

<213> Rattus norvegicus

<400> 164

aattcacagc tgaggaatgc taaatggctg agaagcaoct aaagaaatgt tcaacatttt  
60

tagtcataag ggaaatgcaa atcaaaaaca ccttgagatt ctacctaca ccagtcagaa  
120

tggctaagat caaaaactca ggtgacagca aatgctggaa aggatgtgga gaaagaggaa  
180

cactcctcca tttttgggtg gattacagaa tggttta  
217

<210> 165

<211> 197

<212> DNA

<213> Rattus norvegicus

&lt;400&gt; 165

aattcacaga gacggctgcc atatttgaag atggctccag ggaggatgac attgatgtgg  
60

tcatctttgc cacaggctac agctttgcct ttccttttct tgaggactct gtcaaagtag  
120

tccaaaacaa ggtctccttg tataaaaagg tctttccccc taacctggaa aaaccaactc  
180

ttgcaatcat cggttta  
197

&lt;210&gt; 166

&lt;211&gt; 419

&lt;212&gt; DNA

&lt;213&gt; Rattus norvegicus

&lt;400&gt; 166

aattcagttt acatcttggc cacagcccat ctctctctc ttccttagtc ccaccttgc  
60

cagatccctg tcccaattgc cccctccact tgggtaccac ctaacctgg gacatctgct  
120

tcatgtagta ctagctatat cctttctcac tgaggcctaa ccaggcagtc ttggttagga  
180

tgagatccaa tgctaggaac tatagactga gacaacccca gttctgttgg gagcagctaa  
240

agatggcacg acatccagtg gtcttttctg gtatacaacc ataacatggg tatatagcca  
300

tgccctggc cttcttctgg catttacaag gccagggtga taagcatgac aataaggat  
360

ctcacacccc accaatctc agaaggacaa gtttacagcc actgctgtt ttgtactta  
419

&lt;210&gt; 167

&lt;211&gt; 159

&lt;212&gt; DNA

&lt;213&gt; Rattus norvegicus

&lt;400&gt; 167

aattcagttt tatcaatgaa ggtcagagcc attgggaaag gtgaagtggg ggagccctgt  
60

catcgatccc aactgggtcg gaacctccc acgcatgact caattcagag ctgtttccca  
120

ggaggctggg gcgggatgca gacagattcc aacacctta  
159

<210> 168  
<211> 110  
<212> DNA  
<213> Rattus norvegicus

<400> 168

aattcagcag aactccttga gggaaaatca tgatccagtt atgatttcac cccgtggcac  
60

aacctttaga ataatgggtt ttgttggttg aagaagtcct tgtctgctta  
110

<210> 169  
<211> 199  
<212> DNA  
<213> Rattus norvegicus

<400> 169

aattcatcgt aaatggactc ctcaacaaaa agtctggatg ctgcgacaca aatctgaccc  
60

tggtggaaga atactccttg gtgtgcaaac tcatacagcac tatccaagtc agcatctgca  
120

aacacaatgc aagggtctct tcccccaago tccagggtga ccctcttcag attgcttttc  
180

cctgcagctt ctttgatta  
199

<210> 170  
<211> 380  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 170

aattcctagg gaagtgggaa ccagagcgcc agcaactgagc ctggcccgctg aaggagcatg  
60

gagacccacc ttccttcct tctccctgaa cagcagtctg gcacccagaa gctcagagt  
120

ccaccacctg tgggtgctcag gagcccagcc tagaaagagg actccgacac agcgggcagn  
180

ggctccacag acggatctat gagggaaaata cgggggcagg cangcaggca ggcgaccccc  
240

tgacctctg gtggccgctg tatctgagcc cttttgggaa ggcttataga caacaggtgg  
300

agcccatag ctgggcatag ggagcctggg aagggtcag gagctcagga cactccagg  
360

ctctctagca ccaccgctta  
380

<210> 171  
<211> 366  
<212> DNA  
<213> Rattus norvegicus

<400> 171

aattccctgg cttggcagac gtcaccatcg cagaagtggc ctgcaccgct gagcgtggtg  
60

tttgacgcaa gtactcggtc cgaggctacc ccacattgct gcttttcggg gggaggtgag  
120

aaagtgggtg agcacaatgg aggcagagac ctgcactctc tacacagctt tgttctgcgc  
180

caggcaaagg atgaactcta agaaccctgg tgaagcgcgc atccaccctg gccttatgca  
240

ccccgtgcat aggagtgacc tcacatggac atgcgtatct tcaactgtgg tagtcagaac  
300

gctgaatgta ttgagcttgt gttgcttgct gtgtgccctt tgagccacca cacactacgg  
360

acctta  
366

<210> 172  
<211> 339  
<212> DNA  
<213> Rattus norvegicus

<400> 172



aattccatca gtaaagctaa agcagctacg tctggtcogg tctcttcttg atctgtttct  
60

agatatggaa gcagctacag ggcaggaggt cgagctatgt ttagaatgca tcgaatgggc  
120

caaatcagag aaaagaacct tcttacgcca agcattggag gcaaggctgg tgtctttgta  
180

ttttgatacc aagaggcccc aggaagcatt acatttgggt tctcagctgc ttcgggagtt  
240

gaaaaagatg gatgataaag ctcttttgggt gaagtacagc ttttagaaag caaaacttac  
300

catgctctga gtaatctgcc gaaagccoga gctgcctta  
339

<210> 173  
<211> 290  
<212> DNA  
<213> Rattus norvegicus

<400> 173

aattccaaga gtctgaggtg gtggcaccca cgtttctggc cagggtgctt ttggaaacat  
60

gtgtcgtgga ggccgcatgt ttgcaccaac caaaacctgg cgtcgttggc atcgcagagt  
120

gaacacaact cagaaacgat atgccatctg ttctgccttg gctgcctcgg ccttaccagc  
180

tttggtgatg tctaaaggtc atcgtgttga ggaagttcct gaactgcctt tgggtggtga  
240

agataaagtt gaaagttata agaagaccaa ggaggctggt cagctgctta  
290

<210> 174  
<211> 199  
<212> DNA  
<213> Rattus norvegicus

<400> 174

aattcctaac actcaggctc tgcccgtggg cttggctgca ggaacagac ttgactccat  
60

gacttgactc caccacagct tccaccttgg ccgggactgc tctaccctgt gagccaaaca  
120

ctttaggtgt aagtaggtac actttgtgat gtcactgacc tagtgtaccc tttctttttt  
180

catatctata ctgacctta  
199

<210> 175  
<211> 165  
<212> DNA  
<213> Rattus norvegicus

<400> 175

aattcccagc aacagatata atgaggggct gcgctgagct cttcctgcc aagcagacc  
60

atctttctcac ggcattccctc atctcacaag tgtccaggac catggggaca ttgcattcaa  
120

agcacccgtac ctgctttcta attgatggtc aaggttatat gctta  
165

<210> 176  
<211> 46  
<212> DNA  
<213> Rattus norvegicus

<400> 176

aattccagca ataagaaatg aacaaagatt ggagctgaag acctta  
46

<210> 177  
<211> 39  
<212> DNA  
<213> Rattus norvegicus

<400> 177

aattccgaat gtggattgtg attttctctgc ttccactta  
39

<210> 178  
<211> 283  
<212> DNA  
<213> Rattus norvegicus

&lt;400&gt; 178

aattccaccc aaggctgctg ggtctgactg gttctacaga acaagtggcc catgctagtc  
60

gcaactaccg tgtatactac agcgcctggc ccaaggacga ggaccaggac tatattgtgg  
120

accattccat tgccatctac ttgctcaacc cagatgggtct cttcactgat tactatggtc  
180

gtagcaggtc agcagagcag atcgtagaga gtgtactgcc ggcacatagc tgccttccat  
240

agcatactgc cctgaactgt gtactgccta ggccctgtca tta  
283

&lt;210&gt; 179

&lt;211&gt; 223

&lt;212&gt; DNA

&lt;213&gt; Rattus norvegicus

&lt;223&gt; unsure at all n locations

&lt;400&gt; 179

aattccacag aaggttgat ggagattga tggtaagaaa ccagatacct taggatctaa  
60

cactcggtg tacaagtga tccccagaa tgacnttctt ggtcaccna aaaaccnaaa  
120

gctttttag ctcattggtg aacaaatggc atctatgagg caatctacca tggcattcct  
180

attgttggtg ttcccttggt tgcagatcaa ccggataaca tta  
223

&lt;210&gt; 180

&lt;211&gt; 182

&lt;212&gt; DNA

&lt;213&gt; Rattus norvegicus

&lt;400&gt; 180

aattccctgg ctttctgggt ctagagtgtt ctgtgctcc aaggactgtc tagcgatgac  
60

ttgtattggc caccaactgt agatgtatat acggtgtcct tctgatgcta agactccaga  
120

cctttcttgg ttttcttgc tttttctgat tttataccaa ctgtgtggac taagatgcat  
180

ta  
182

<210> 181  
<211> 189  
<212> DNA  
<213> Rattus norvegicus

<400> 181

aattcctcat tggatcatgtc accgaaggcg ttcattctcca tggtaaagcc gtgcttcccg  
60

ttgctgtact cccattgtg tagctggatc atctcatgt tcttctccca cactgctctc  
120

ctccactctt cctcattcgt gccatacagt cttctgtgtg tggacttcca ctgggtgccac  
180

tgtgcatta  
189

<210> 182  
<211> 160  
<212> DNA  
<213> Rattus norvegicus

<400> 182

aattcgggggt cctctgaaag ctaccaggg ttctcatctt ccctagagct tgtagtgtaa  
60

agtgacagct agtgtgtgcg cgcgtctct cgtctctct ccttctccct ctctctctcc  
120

ctattccctc cctcctctc ctctgcccct tcttggttta  
160

<210> 183  
<211> 287  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 183

aalleggygt gaagnagaag ccgatataca tcaatgtcgt cagggaacca ttgagaggct  
60

agtttctac tattactttc tgaggtttgg agatgattac agnccgggac taaggaggcg  
120

gacacaagga gacaagaaga ccttcgatga atgcgtggct gaggcggctc agactgtgct  
180

ccagagaagc tctggcttca gatcccggtc ttctgtggcc actagctcag aatgctggaa  
240

tggttgaagc agatggggcga tggatcaagc taagtacanc ctggtta  
287

<210> 184  
<211> 135  
<212> DNA  
<213> Rattus norvegicus

<400> 184

aattcgtcaa agcagcacca ggcccccgac tgtgccaaac cactgaagaa gcgccccatc  
60

atctgaaagg caagcaaagc tgatcaactt caggctgctt tgttggtcat ctctaacatt  
120

cataatctag agtta  
135

<210> 185  
<211> 79  
<212> DNA  
<213> Rattus norvegicus

<400> 185

aattcgacag tgtcccatgc agacattact aattgattct gttcttatta tggaaccttt  
60

tggttgcca ggtgtgtta  
79

<210> 186  
<211> 413  
<212> DNA  
<213> Rattus norvegicus

<400> 186

aattcgtagg aagcttcaaa accaaacaag acttcataga ttgattgaa gtcactacc  
60

ggggagctat gcgaggaaaa cttattgttc aaagtcttat tgacccaag aacatacca  
120

aatacgacct cctctatcaa gacatttagc actcgctgct gttggagaga agagaggcac  
180

aggctgaagc agaacctgaa ctgagagagc ctgtggtctg gagtccctca gagacatgct  
240

cactgcctga gcaaagaggt ttcataggtc tgtaatcaac ggcccctctg cagaagcccc  
300

agtgtcccca gaatggagat gctgagcgc ccattctctg agagcctcag agcagtgagc  
360

gagtgcacagc tggcattgta acggaccctt tatcttgact gtctttcccc tta  
413

<210> 187  
<211> 362  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 187

aattcgggca gggcatcatg gtccataaac atgaggggat gaaggtcttt gtgccactg  
60

gtttttcagc cttcccttcc gagctactgc atgccccaga aaagtgggtg aaggtcaagt  
120

ccccaaactc atctcctatt cctacatgga acgtgggggc cnccttgctg cctttgaaga  
180

gccccagctt ctggcccagg acatccgcaa gttcgggtcc ctggctgagc tgcagtagtg  
240

acactggata ccaactgtgg ctttagcagc agccctgggt cctcccaagt cacacttatg  
300

gaagatgacc cctttctnag gaataagttt gttccctgac cacactcgag gaccagact  
360

ta  
362

<210> 188  
<211> 74  
<212> DNA  
<213> Rattus norvegicus

<400> 188

aattcggggc tgtttcagat ttctacact ctgattggta ggtgtgtcca tctggacagt  
60

ttattctagc ctta  
74

<210> 189

<211> 267

<212> DNA

<213> Rattus norvegicus

<223> unsure at all n locations

<400> 189

aattcggggg gccgttgggc ttcacggcga tgetgatact gctgectgcc accatgttcc  
60

acctgcttct ggcgcccccgc tcgggtccgg cgcgcctcct ggcctacca gcttatctgc  
120

ctgggctgga ggagctgtgg agcccacggg ctctgctgct gttgttcate tggctcggcc  
180

tgcaggtggc gctctatttg ctgcctgcac gcaaggtggc cgaggggctg gantcgaagg  
240

acaagagtcg cctgcgctac cctatta  
267

<210> 190

<211> 192

<212> DNA

<213> Rattus norvegicus

<400> 190

aattctaaac atatgccatt gtggaagaag caaagccacg gagatagcag gccagtgcag  
60

attcactgat gtgacaactg cattctctca ggtaggaca ttggtggaag gagcctctgc  
120

acttatgggc tgtgtagcta tgggaacott gtaacttctg ccaattttgc tctgaaactc  
180

aaactgcctt ta  
192

<210> 191

<211> 83  
<212> DNA  
<213> Rattus norvegicus

<400> 191

aattctagat ttcttggttaa actatcaaact ctgtatatgt atgtaataaa gtgtctaatag  
60

ctaggagttt attggaaggt tta  
83

<210> 192  
<211> 56  
<212> DNA  
<213> Rattus norvegicus

<400> 192

aattctcaga aactatataa tacattctgc tgttggtccaa tgcaaagtgt acttta  
56

<210> 193  
<211> 42  
<212> DNA  
<213> Rattus norvegicus

<400> 193

aattcttcag aaatgtggtg tctaagaaca ccagaccctt ta  
42

<210> 194  
<211> 133  
<212> DNA  
<213> Rattus norvegicus

<400> 194

aattctatgc attgatttac atgtactgaa ccataactct ttgactgtaa tggagccaac  
60

ttgttggtaaa tggttatctt catatgttct tgacttgata tgaaatattt tactataaac  
120

ttttcatatg tta  
133

<210> 195  
<211> 79



<212> DNA  
<213> Rattus norvegicus

<400> 195

aattctgacc acatgagctt cctagacaga gtgaagaata tgctttatcc tgtgccatgg  
60

atgtatttat gccatgtta  
79

<210> 196  
<211> 65  
<212> DNA  
<213> Rattus norvegicus

<400> 196

aattctcctt gtagtagcgt tgggaggaga caatgggtcc tgctgtccag tagatcatga  
60

tggtta  
65

<210> 197  
<211> 64  
<212> DNA  
<213> Rattus norvegicus

<400> 197

aattcttcag aaggatatgtg aagctatttg catatgtaaa taaactgcta agattgtcat  
60

gtta  
64

<210> 198  
<211> 41  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 198

aattctgcga nnaagttcaa atacaatagt gctggcagtt a  
41

<210> 199  
<211> 36

<212> DNA  
<213> Rattus norvegicus

<400> 199

aattctgcaa attgccttac agactagcca tactta  
36

<210> 200  
<211> 218  
<212> DNA  
<213> Rattus norvegicus

<400> 200

aattctctac catctgttac aggctgtggg atgtcagagg aaggaacggg gtttgggtgg  
60

ggtacccagg gcaggaccga gcagcaggat tcccgaaga gaaaggaggc agatgggcct  
120

ttcaagagct ttaggaagcg actaacagca gagtgtctgg gaacatacga atcagtctct  
180

tgcataattgt aataaaccaa acacaagact cgccatta  
218

<210> 201  
<211> 151  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 201

aattcagcct gaggaggaaa tcagtctatg gtntacttcg tctgcctct tagcttctgt  
60

acctgcttgt cacatttgca cctatgagtc aagacatggt tgttaccttt attttgattt  
120

atttctatta caattcaatt tttttccttt a  
151

<210> 202  
<211> 63  
<212> DNA  
<213> Rattus norvegicus

<400> 202

aattcagtca cggactttat gcctttgaaa gttgtcacca ttttattgtc accctccatc  
60

tta  
63

<210> 203  
<211> 221  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 203

aattcctctt atcaactgca tacaaagtgt nttcaatata attttttccg tataaaaata  
60

ctgggaaaaa ttgataaata acaggtaaga gaaagatatt tctaggcaat taggattgtt  
120

gggacagtga gtcctgtggg gtgtttggac acagccacag gacaggcctc ctgacagtgc  
180

tgcagatcag acggcaaaaag aaagcagaac tgtctggttt a  
221

<210> 204  
<211> 178  
<212> DNA  
<213> Rattus norvegicus  
  
<400> 204

aattcctcca tcattgcaga ccggattgca ctcaagctgg ttggccctga gggctttgta  
60

gtgacagaag caggattcgg agcagacata ggaatggaaa agttcttcaa catcaagtgc  
120

cggtattctg gtctccagcc tcatgtggtg gttcttggtg ccactgtcag ggctctta  
178

<210> 205  
<211> 233  
<212> DNA  
<213> Rattus norvegicus  
  
<400> 205

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60

cgaagacacc aagttcaacc accgtccatc cagaaatgag aagaacaata ccctagagca  
120

aagtcattcca caccagctac acactccgct gctaacctga aatgcatgaa cagaaaccca  
180

tagtatttat gccctctag gcagggtgcc acaataaaat tgtgagcagc tta  
233

<210> 206  
<211> 74  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 206

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60

gactcattac ttta  
74

<210> 207  
<211> 54  
<212> DNA  
<213> Rattus norvegicus  
  
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54

<210> 208  
<211> 240  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 208

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60

tcaaaactctt ctaacattgc aatatgctaa tattgttaga ctgctacaga tgcactgaaa  
120

cacagaatat gatcttttaa ggggccaaaa atgctacggt gtgaaaatat cacaatgact  
180

gtctttncct taaaaaagtc acataaaatg cagtttagaa caaggngaaa cataggtcta  
240

<210> 209  
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<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 209

aattcagggt atgnnnngtg gntataaagt acatttctgt agtgtgtgtg ctacottagt  
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ttnatgttct ttatgaaaaa ttaaaaaacct cccctccac aactttcttc ttgctttgaa  
120

tataggtaag atcataacat ctatcta  
147

<210> 210  
<211> 67  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 210

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60

tactcta  
67

<210> 211  
<211> 41  
<212> DNA  
<213> Rattus norvegicus  
  
<400> 211

aattcattct gtttttttaa tctaactttt atatcaatct a  
41

<210> 212  
<211> 99  
<212> DNA  
<213> Rattus norvegicus  
  
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<400> 212

aattcatctc ctcngaaag caaagttatg actattcttt ttcacagatc aaattacaag  
60

gggactaata gtgatgtaat ggnacccatg ccttgccta  
99

<210> 213

<211> 141

<212> DNA

<213> Rattus norvegicus

<223> unsure at all n locations

<400> 213

aattccatgt ctatggnttc caagtengna gagaancacn nggatgactg ccaggaggac  
60

ccagggtttcc agtgtgagag ctgaaancag gtccatccct gcttgtctgt cancaaatta  
120

ctcctcggtg ttctccctct a  
141

<210> 214

<211> 134

<212> DNA

<213> Rattus norvegicus

<400> 214

aattcctcca ccatttaatt cagctccaat caattttcaa tattgtctac actgttccct  
60

gcaaaccat accattaag atttatgact attcctccta cctgttttcg cttgctgtgc  
120

cacgtgctaa tcta  
134

<210> 215

<211> 121

<212> DNA

<213> Rattus norvegicus

<223> unsure at all n locations

<400> 215

aattccccga ccagagata ttgaccctg gccacttttt agatgggaat ggaaagtta  
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agaaaagtga ctatttcacg cctttctcag caggaaaacg gatgtnnacg ganagggctc  
120

a  
121

<210> 216  
<211> 254  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 216

aattccgtaa agaaataata ttctccttca aaaagaggct ggcccgattc caccgaagga  
60

aagagatgga aaaaaacaaa caaacatcc tgaagtcagc ttctccatgt actgtcacia  
120

tgagagactc aattgcctcg tgagtgtggt ggagggagga aaaaggggtc atacctgcct  
180

cattaggaag agcagaacta tggttaagan cacagtggac tggatgttac actcantnnn  
240

ccacttaata gcta  
254

<210> 217  
<211> 107  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 217

aattccgnnc cgaacaaggc cacangtgan ncttactgga ntccatgctg ccattttttt  
60

gtctgaaaat gtcagtactt aaaagtattt aggnaacact cgagcta  
107

<210> 218  
<211> 37  
<212> DNA  
<213> Rattus norvegicus  
  
<400> 218

aattccttgg tattcggtat cagtaggaat ggggcta  
37

<210> 219  
<211> 291  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 219

aattcctgac cantgnnggt ctgganaaga ncccagagga gatccaacgc ctgtncagg  
60

anaagaaggt ggacntgtcc aagcccttgg taagccacat ggggtccgg tgtcacagcc  
120

tgccacgtgg tcttgggggc cttcctctgt ggcaaaccgc atgtgcctgt ctacgatggc  
180

tcttgggtgg agtgggtacat gcgtgcccaa ccggagcacg tcatntntca gggccggggg  
240

aagaccctgt gaangacaca gtgcagcttg ggtgacaccg gaaccatcct a  
291

<210> 220  
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<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 220

aattcctgga aaaagacata tcagaggaan ttcttaataa aatcatctac cacacctcct  
60

ttgatgtaat gaaggaaaac ccaatggcca actataccac tctaccctcc agtatcatgg  
120

accactctat atctcctttc atgaggaaag ggatgcctgg agactggaan aactacttta  
180

ctgtggcaca aagtgaggat tttgatgaag actaccggag gaagatggca gggagcaata  
240

ttaccttccg cacagagatc tgagagcagt gaggnagagg ganncccta  
289

<210> 221  
<211> 91



<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 221

aattccaggc cagctnntca antaagatcc tatcttaaag tanaatgaaa taggggtggg  
60

gatttagcta cantgnnana gcacttgccct a  
91

<210> 222  
<211> 166  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 222

aattcccaaa acctnnnacg aagtctccgg antgagtc aa ctataccgct ttcttgccat  
60

gagtcagag gctccgact ccacagagan cagctcagtn ttcgtcttta ctgcgctaca  
120

cgtagaagag ctaagaaatg gagccggtn ncagaccccn ggacta  
166

<210> 223  
<211> 112  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
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aattccagan tcagcaccaa nngacagacc attctaaaat gggcaaagga ctgaacggat  
60

gntccggatt gacagtgacc acacagccca tganganccc acaggaccac ta  
112

<210> 224  
<211> 65  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 224

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60

gtcta  
65

<210> 225  
<211> 44  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 225

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44

<210> 226  
<211> 105  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 226

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60

cctctgtttg ccatcacnga cacagaaatg ancaagaatg tgcta  
105

<210> 227  
<211> 110  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 227

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60

aaagaaagca aaagggttgg gatttagntc agtggagag cgcttgcta  
110

<210> 228  
<211> 392  
<212> DNA  
<213> Rattus norvegicus

<223>        unsure at all n locations  
<400>        228

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60

nangatgctg gcttgggtgtg aacnnatctc tggcatatct gatgangatg cangnccagg  
120

atcccantgt ccangnatga nccagcaacc ctggaaacct acactcccca gagaaaaacc  
180

anaaattgaa agaanancaa actaaaagga ngcnaaacac ataaagcatc antcacagtt  
240

tgnnccagcc tngatctgac ntcgaanaag cctgaagaca gatgtgcccc ncttcanaca  
300

cgtctggctt ctggcaccac ttgtgagctn cctgaaagtc accanncten tgctgtntcc  
360

caanncaang nnatgagnnc ccnaacacac ta  
392

<210>        229  
<211>        81  
<212>        DNA  
<213>        Rattus norvegicus

<400>        229

aattcgggaag gactctccaa tgctggtcag ggagatatag ccgctttcta tctaagaaca  
60

tcattacttt aacaagtact a  
81

<210>        230  
<211>        203  
<212>        DNA  
<213>        Rattus norvegicus

<223>        unsure at all n locations  
<400>        230

aattctggac caagactctg ccccagaaga tccaagagct aaagggttct caggacaatc  
60

acacagagct ataatgtcct gtgtcaagaa aactgtgtag acttgangta cagggtttct  
120

gaagcctcta aagtctacac ttgaatggat atatcacatc tgttggatga ccttgcaatt  
180

aaggttgaag tcgaccatgt cta  
203

<210> 231  
<211> 110  
<212> DNA  
<213> Rattus norvegicus

<400> 231

aattctgctc tgtgtatcct gatccaccaa gcagtcactt ggtagcagaa aagtggctct  
60

atgtctgctc ttaactgtgg tggcgcttct gggactgtct tccagctcta  
110

<210> 232  
<211> 252  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 232

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60

aagaangtta gagcacagta catactaccc ctgccttgct cccaccaccc gctctccaca  
120

accctcccc atgtgcaact gacactcctc cccagtcgat gctcctacct acctttcagc  
180

ccacgtcatt cgtagtgtcc atcttgtnaa gccctgttgt gccacacagt ntaacnngcc  
240

ccctgcagc ta  
252

<210> 233  
<211> 120  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 233

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60

gggaggccag tttccatccg cactgaattg gggagaanaa aactggncoc aattacgcta  
120

<210> 234  
<211> 47  
<212> DNA  
<213> Rattus norvegicus

<400> 234

aattctaagc cgagtttaac atgttcaaga tatctccgtt tcagcta  
47

<210> 235  
<211> 121  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 235

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60

agaaaagtga ctatttcattg cctttctcag caggaaaacg gatgtgtncg ggagaggcct  
120

a  
121

<210> 236  
<211> 65  
<212> DNA  
<213> Rattus norvegicus

<400> 236

aattcatcca caccaactgg acatgcccac ggtggcagtg tgcgtctctc ttcatacaat  
60

gccta  
65

<210> 237  
<211> 49  
<212> DNA  
<213> Rattus norvegicus

<400> 237

aattccctac acagaccaga actggctttt aactctacca ctacgtcta  
49

<210> 238

<211> 48

<212> DNA

<213> Rattus norvegicus

<400> 238

aattccctgg gtgcctttct ttacaaaatg ggttcaataa ataagcta  
48

<210> 239

<211> 74

<212> DNA

<213> Rattus norvegicus

<400> 239

aattccatat gtaataggat gcaagtctaa gcgtttcatg tggacataaa tgtatctaaa  
60

taaaacttcc ccta  
74

<210> 240

<211> 142

<212> DNA

<213> Rattus norvegicus

<223> unsure at all n locations

<400> 240

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60

gttaggacca caacactggg aggtgggtaa aaaacaagca acaagggctg gggatttagc  
120

tcagtggtag agcgcttacc ta  
142

<210> 241

<211> 184

<212> DNA

<213> Rattus norvegicus

<400> 241

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60

tgaatctctt caccagcacc cctctggcca caggcaaagt atgccacagg cctctgacat  
120

actttggaca gactgccagc taacacccac ccccccatg ttaagacaca tctctggatc  
180

ccta  
184

<210> 242

<211> 71

<212> DNA

<213> Rattus norvegicus

<400> 242

aattccaag gtcaaagcg gttagctget gtggacttgc atatggaaca tgttacctct  
60

ccctttgctt a  
71

<210> 243

<211> 391

<212> DNA

<213> Rattus norvegicus

<400> 243

aattccccta cacattggat taatcttact aacatgacaa aaaattgctc cactatcaat  
60

tctataccaa ttttatcaac tcttaagccc aactatcacc accattctcg caatttcato  
120

agtctttggtt ggcgcctgag gaggacttaa ccagacccaa acacgaaaaa tcatagcata  
180

ttcatcaatt gccacatag gatgaataac agcaatcctt ccatacaacc ctaacttaac  
240

cctcctaaac ttaacaattt acatcctaact tactgttcca atattcatca cactcataac  
300

aaactcagca acaacaatca acacactctc actcgcgatga aataaaaactc ccataatcct  
360

aaccatagca tccatcatcc tccatcact a  
391

<210> 244  
<211> 175  
<212> DNA  
<213> Rattus norvegicus

<400> 244

aattcgccct gtcgggatga gagagtggga gactgagtaa ccatggctcc gccgtgccct  
60

cactggctct tttccgtgta gcctctctgg gcaagtgagg gaggcattatt agtttccatt  
120

tgcaggtgtg gaacactgag cccagaaaag gacaagaaga ctcattcagt agcta  
175

<210> 245  
<211> 194  
<212> DNA  
<213> Rattus norvegicus

<400> 245

aattcgccaa ggatgactcc gatagcatga gccgaagaca gacttcttat tctaacaacc  
60

ggagcccaac gaacagcact gggatgtgga aggactcgcc caaatcttcc aaatccatca  
120

gattcattcc tgtctccact tgagcccccac gttcacgcag cccgactctt gggagggact  
180

tttgtgtcca gcta  
194

<210> 246  
<211> 44  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 246

aattcgggct ggggatttag ctcagtggan aaacgcttgg ccta  
44



<210> 247  
<211> 198  
<212> DNA  
<213> Rattus norvegicus

<400> 247

aattctggag atgggacacg aggatcagtt caaggtcac cttagctact cactgcatag  
60

taagtttgag gtctgcctgt gctacatgag accgagggag agaaaggagg ggaaggagtc  
120

aagcggtagt tgcctttaat cgcagcatTT gggaggcaga ggcagggtgga tctctcggtt  
180

tgaggccagc ctggtcta  
198

<210> 248  
<211> 332  
<212> DNA  
<213> Rattus norvegicus

<400> 248

gatccgccac tccttctgca tacatgtoga tgagggtct ctccttcattg tccttcccat  
60

agaggttgta tttggtggca atgtagttga gaatggctct ggtctgcacc agcttcatcc  
120

catcaatctc caccatgggc acttgctgga acatcaaact cccatcattc cttagcctgg  
180

ccaggtcac cccagttttc agaaattggt cttcaaactc tactccagct gcagccagga  
240

gccaccggat gggctccatt ctccccctgc catcgaagta gtgaaggact ggcttccccg  
300

gcatggcagc aattgcttga gttctcttgt ta  
332

<210> 249  
<211> 481  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 249

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60

gcacaaagtg aggaagtggc cctgggaggg gggggggcgg ggcagctccg agctcaggca  
120

gtagggcact catggtacca tgaggggtggc cagtctgcag gaggcattgga gtgaaggcca  
180

gtgctggctc cacttgggaa gaaagggctt acagagcccc ggagtcgag gcagttggtc  
240

tctgccancc atggcgatat caagcctcct atccattccc cctgtacctc tggagatagc  
300

ctgtccataa gatggctgtc ctgccctact ggggccactt gaagaacaaa atgtcatttt  
360

attctcttga gaaaagaaaa agagggaatc atttttgccc ctgcttggat gcctagaagt  
420

ctaataagcc tcattacaaa aagaagtttt ctgggtctca tctggcgttt tctttggctt  
480

a  
481

<210> 250  
<211> 441  
<212> DNA  
<213> Rattus norvegicus

<400> 250

gatcctgtgg taggagtctt gaaatgcccg ttgaactgct gagaggatac tccacactcc  
60

accatcgact tccgtaggct tctcagcaac ttggaattgt tcttgatctt caggtttggc  
120

gaccaccatg tgcgtgagag gactgacaaa attgtacttg agtgacaagt tcagaacttg  
180

ggcctcgagg gcctctaaact cagctcctga ggctgaaatc ctctgctcca gctgttgctg  
240

tatggtcagc aacgcccaga gtctctccat aaagttatga aagatgtact taggacctg  
300

gaactctttc tcttggtggg ctatgctggc ctccgtttgg aaagtgatgt tctgcaggcg  
360

catctgcccc ctgactttgg ctaagaggac atcagggccc tggccccga cttcccagcc  
420

accaccatct ctgagccctt a  
441

<210> 251  
<211> 193  
<212> DNA  
<213> Rattus norvegicus

<400> 251

gatccacaca accaaaccaa catgagtga agagttagca acacggcctg tggttcgct  
60

atgtttgggt gtcttgagc aaagctgcta tggagaaatg tgcaggtgcc taggggatgc  
120

tgtactgtc tagaggatgt aactcaactc acaggggtgac tttttgatgc ctgacccaat  
180

tactagttga tta  
193

<210> 252  
<211> 156  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 252

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60

aacttcaagg ntgtgagtgg ggtcacctgg gcaggettga tcaccacggt gttcccagcc  
120

gccaggcagg ctgcatcttc caggatacca tcatta  
156

<210> 253  
<211> 101  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 253

gatccgaacc caagaggtaa aaaccttccc gcgcgaccag aagtgtccga ggctttcccg  
60

gaggcggtgg gacttacttt cccaagaana aagcaggatt a  
101

<210> 254  
<211> 228  
<212> DNA  
<213> Rattus norvegicus

<400> 254

gatctgcacc gttttgaagg aggaattcta ccacagctat ttgcccggtg gccgcagccc  
60

acatcagggg agtaaactct tcttcattcg tgtgattgat aacattttct tgttcaatac  
120

gagtagccag gtagagcatc tctccctgag ctgccaaactg gtgaacagac agagaatttg  
180

ctaacagagg tgtggtggag acctcgtttc cctgtgctt gttggtta  
228

<210> 255  
<211> 177  
<212> DNA  
<213> Rattus norvegicus

<400> 255

gatctttacg tgggtggtct ttaggtagtg gacttttatt tactcccaag ggcattcatt  
60

caaactctcc cctcttggg gaaagttcag attccacagc aggtgctgat agtacaacca  
120

tgtccatttc ataacaatat gtaggatgtt tgatcttcaa gttggtgaat gctgtta  
177

<210> 256  
<211> 447  
<212> DNA  
<213> Rattus norvegicus

<400> 256

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60

tgtttcattt acatgaagag gaatatgcca agaacctgct ggacaagttc atactctgaa  
120

agaggaagtt gaactctgtaa tctggccata agttatgtga ctttctcag aggatttctg  
180

gggttacagg caggagtggc tgattgggtca taacagtacc taattatcat atgggtggaa  
240

ggactgagtg ggatgtatgt gctgaacctt gtggcacttg caggaagctt tgtgcaaggc  
300

cattctctag ataaggctcag gcacttgtgc ttagaacact ttccagataa gattgggcaa  
360

aggagaggaa accccactga gaaagggagt cttccatttt gcaccaggtt cagagagctt  
420

atctagacat ggtcgacttc aacctta  
447

<210> 257  
<211> 350  
<212> DNA  
<213> Rattus norvegicus

<400> 257

gatctaaaat acctcgggaa tacatgtcaa tcagggtctt ctccttcctg tcttcccat  
60

agaggtcata ttgggtggcg atgtagttga gaattggctt ggtctgtgcc agcttcatcc  
120

cgtaactctc caccatgggc acttgggtcaa acatcaaatt cccgtctttc tttagctttt  
180

ccaagtcttc tggactctgt ataaacttct cttcaaactc cactcctgct gcagccagga  
240

gccaccgat gcactccatt ctgccccggg cattgaagta gtgaagcact ggcttccag  
300

acatagcagc aactgtgctt tcaactgtcta gcgagaatcg tggtttctta  
350

<210> 258  
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<212> DNA  
<213> Rattus norvegicus

<400> 258

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tcttcagcag ctctctctcc tcagtgaggt caaaggatcat gccccacaag taggagccaa  
120

agacaaagag aatgtcatca ccatgggtctg cctta  
155

<210> 259  
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<212> DNA  
<213> Rattus norvegicus

<400> 259

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37

<210> 260  
<211> 40  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 260

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<210> 261  
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<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 261

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gaagacttgt ctcaaaaata agagggaaaa agcaaagag gttgtcaca atgtgtactc  
120

gtcatacaaa tgccatccat gcaaagtgtat acacacacac actcacacac tcacacacac  
180

acacacacac acanacacac acacacacac ncnataccc attta  
224

<210> 262  
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<213> Rattus norvegicus

<400> 262

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31

<210> 263  
<211> 53  
<212> DNA  
<213> Rattus norvegicus

<400> 263

gatcttcgaa ctaaacgctg gggcgccac ctcgaatcc caattttctaa tta  
53

<210> 264  
<211> 63  
<212> DNA  
<213> Rattus norvegicus

<400> 264

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60

tta  
63

<210> 265  
<211> 105  
<212> DNA  
<213> Rattus norvegicus

<400> 265

gacctaattg aggcgagcag ggacctggt ggacaaggac acaattaaaa ccgattttg  
60

ttccaaattc tgggaaacat agacatttaa ctctgaagat gcta  
105

<210> 266  
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<212> DNA

<213> Rattus norvegicus

<400> 266

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atgcta  
66

<210> 267

<211> 137

<212> DNA

<213> Rattus norvegicus

<400> 267

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aagcagaagc tgggcctgca tgtactcatc tacatcatgg aggccagtga catcaggagc  
120

cccgtcacac actacta  
137

<210> 268

<211> 197

<212> DNA

<213> Rattus norvegicus

<223> unsure at all n locations

<400> 268

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tgtttcttgg ctctctctct gtcactctac ttgtcttgcc ttctcttgac agtaacagct  
120

gttcttcagg tcaactggat caggcccccag ttgtctctaa ggagcaggaa gtctctctac  
180

ctaccctacc cacccta  
197

<210> 269

<211> 40

<212> DNA

<213> Rattus norvegicus



<400> 269

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<210> 270

<211> 109

<212> DNA

<213> Rattus norvegicus

<400> 270

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60

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109

<210> 271

<211> 51

<212> DNA

<213> Rattus norvegicus

<400> 271

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51

<210> 272

<211> 36

<212> DNA

<213> Rattus norvegicus

<400> 272

aattctacag aaccgtgttt atgatacagc cgttta  
36

<210> 273

<211> 36

<212> DNA

<213> Rattus norvegicus

<400> 273

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36

<210> 274

<211> 67  
<212> DNA  
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<400> 274

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60

gatatta  
67

<210> 275  
<211> 287  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 275

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60

cattggaaga ccttagagtc agaattctct tgtgtaagag cctgaatgn tgtgaccaac  
120

ccagtggtct acagcatctt tgcagctggt aatctcactg ttctcgttcc tattgaagaa  
180

attactggcc cagaaatgcc ttggtgtgt ttggcagact ttaaggcaca tgcgcaaaag  
240

cagctgtcta agacctcctg ggacttattg aaggagaagc tgacgac  
287

<210> 276  
<211> 260  
<212> DNA  
<213> Rattus norvegicus

<400> 276

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gtgctggac atggtcacga acacggacat ggtcatggta aaatggaact tccagattac  
120

agacagtggg aaattgaaag qacgccatta gaagcaatgc agaagaagct tgctgcacga  
180

gggctgaggg atccatgggc tcgcaatgag gcttggagat acatgggcgg ctgcagaca  
240

atatcacctt cagagcgta  
260

<210> 277  
<211> 299  
<212> DNA  
<213> Rattus norvegicus

<400> 277

ctacaacagc accagagaca ccattgtgat agagtgggac ttggtgtgca gtccaacaaa  
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ctgaaggaga tggcccagtc gatcttcatt gcaggcatac tggttggagg acctgtgatt  
120

ggagaactgt cagacaggtt tggccgcaag cctatcctga cctggagtta tctcatgctg  
180

gcagccagcg gctctgggtgc tgccttcagt cccagcctcc ctgtctatat gatcttcga  
240

ttcctgtgtg gctgcagcat ctggggcatt tctctgagca ccgttatctt gaatgtgga  
299

<210> 278  
<211> 139  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 278

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60

gatgtgctga cccctgcgat ttccccaaat gcgggaaact cgactgcata atttgtggta  
120

gtgggggact gcgttcgag  
139

<210> 279  
<211> 328  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations

&lt;400&gt; 279

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60

gctgggggaa gattggccat ggtggtgaat atggcgagga ggccctacag aggatgttcg  
120

ctgccttccc caccaccaag acctacttct ctacattga tgtaagcccc ggctctgccc  
180

aggtcaaggc tcacggcaag aaggttgctg atgccttggc caaagctgca gaccacgtcg  
240

aagacctgcc tggcgccctg tccactctga ggcactgcat gccacaact gcgtgtggat  
300

cctgtcantt cagttcctga gccatgct  
328

&lt;210&gt; 280

&lt;211&gt; 312

&lt;212&gt; DNA

&lt;213&gt; Rattus norvegicus

&lt;400&gt; 280

ttacaaccca ggtgtggatg ctggagtgtt tcttttgtct tctattttaa agatatcttg  
60

aaaaaaacct gtcactgtcc ttttctgag accatgtctt ccatcaagat tgaatgtgtt  
120

ttaagggaga actacaggtg tggggagtcc cctgtgtggg aggaggcatc aaagtgtctg  
180

ctgtttgtag acatcccttc aaagactgtc tgccgatggg attcgatcag caatcgagtg  
240

cagcgagttg gtgtagatgc cccagtcagt tcagtggcat tcgacagtca ggaggctatg  
300

ttgccaccat gg  
312

&lt;210&gt; 281

&lt;211&gt; 289

&lt;212&gt; DNA

&lt;213&gt; Rattus norvegicus

&lt;223&gt; unsure at all n locations

&lt;400&gt; 281

ccttgaacgg acatgacnct ganaagttag aaatgagctc agggacccgg agaccgcgt  
60

cattctccct agcctgcntc tcttgccccg naacgcgggg ngcaggtttg ctctaaaaan  
120

ctctgtgcat cttcgatgat aaggaccaac agctgggggt gtagctcagg gcagagtctt  
180

gcctggnaag cccggatgcn ttgaggcctt gaccaccnc agcacanana naaaatgaag  
240

gaagacccaa ggnaccttct ggaagacctc atccccaaan aagcaagtg  
289

<210> 282  
<211> 250  
<212> DNA  
<213> Rattus norvegicus

<400> 282

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caatatggct tctgcaaggc gactctcatc cacagacttg gtggggaaga ggtttcagtg  
120

gcctgcgcct gtagccccac cagctggccc acctgaatcc gtggtggtag gaccgtggc  
180

agttcctcta ggacttcag accaccgaac ccaccatgac ctacggcatg ctttctctcc  
240

tgtggcttct  
250

<210> 283  
<211> 285  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 283

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tycannaanc ggtcncaaaa gattcnaann caagatggna gccnncnag aacaggncat  
120

tgtgaatgtn ctttaaggaag aacaggtnc ccanacaan atnaaagttg ttgggggtgg  
180

tgtgntggca ngggttgtgc catcagnanc tcaangaang actgggtgat gagntgcccc  
240

ttgttgatgn cacacaagan aancataaen gagagangan cgatc  
285

<210> 284  
<211> 266  
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<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 284

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cagcttttgc actttcnang tgacgatggn cntacagagg acccaatcct tgcttctgct  
120

ctgttgctga ccttgctggg gttaggggtg tacagccctc ctatggccaa gatagaatgt  
180

accaacgggt ccttagacag catgtggacc ctgaggggac aggcggcagg acaactactg  
240

caacgtgatg atgcagagac ggaggt  
266

<210> 285  
<211> 250  
<212> DNA  
<213> Rattus norvegicus

<400> 285

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60

actgcctgga gccaccttc tttgggagac ctteetgect cagctgtcgt cctgtgtcgt  
120

cattcaactaa agtcctgac gtcagattaa gcaagcagtg atgggttaca ttagagacaa  
180

gccgcagaga taaggcctgt tctcttttcg cagataatga tgagttttaa ttaccactg  
240

gtttgtatgg  
250

<210> 286  
<211> 118  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 286

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ccnntncaat agtggagtga gcacgtgccc cccacgtagc ccaaanactc ccccaggc  
118

<210> 287  
<211> 262  
<212> DNA  
<213> Rattus norvegicus  
  
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<400> 287

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cctcaatggg gtcattgctc caacacagag ctttgcccc gacccaagt atgtcagcag  
120

caaagccctg cagaganaga gcagcgaagg gtctgccaag gccccctgca tccctgccc  
180

ncattgagaa tgggaagaag gtcagctcca gcnttattca cctactacct gacggacgg  
240

cancaccttg ncaaatatga gc  
262

<210> 288  
<211> 282  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 288

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ctngtcctgc tcttttnnt tgctcagatt ctagagctgc caatcagctc cacaaggtgc  
120

agggctgggt ttctgagaat tggctttnat gacccggaaa aaaancntt nanctttgat  
180

agccgtggac tacctcaata aacatcttct tcagggatc aggcagatct tgaatcagat  
240

gacaaagtaa ggtgtggtct cggcggccct tcgganaggt gt  
282

<210> 289  
<211> 265  
<212> DNA  
<213> Rattus norvegicus

<400> 289

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cattgttgta aagggaaatt tgagaggtga tgatgccag gaagctgtta aacatggtgt  
120

ggatgggac ttagtgtcga atcatggggc acgacaactg gatggggtgc cagctactat  
180

tgatgccctg ccagagatcg ttgaggctgt ggaaggggaag gtagaagtct tctggatgg  
240

gggagtcagg aaaggcaccg atggt  
265

<210> 290  
<211> 199  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 290

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60

acaaggatgt gagatacact ctggagagat cagagacaag cacaganact gtgtcncact  
120

agtgncgttg cagtctnaac atctgtggag atcnanncan tgggtanntna ctggcncgan  
180



ncgtncnatg caaannacg  
199

<210> 291  
<211> 285  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 291

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60

agtgtgatct tgttcaacta cagttatgga gaagcaactc attggccagn ttctgggaga  
120

ntttgtgnng tanttaatgc agcngtatgg naacnnaata cnatttangt ttenggtgct  
180

gntantaatg gtcnatgcct totacagtgg gttgtccann nggantactt ccancgnnat  
240

aggngntgga gentatgttc tcgccgatat ganggttgcg gngta  
285

<210> 292  
<211> 268  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 292

ccacgctgga gcgaanacca ttgctcgtga gcacatgggg agactgctgc accagctact  
60

ctgcgcaggg cacctctcta ctgtccagta ctaccaaggg ctgtatgaaa cactagaatt  
120

ggctgaggac atggaaatcg acatccctca tgtatggctt tacctggcag aactgataac  
180

acctattctt caggaagacg gggtaacctat gggagagctc tttagggaaa ttacgaagcc  
240

tctgagaccc atgggcaaag ccacttct  
268

<210> 293  
<211> 185

<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 293

ctcattgccca ccatgaactt ctccggcaag taccaagtgc agagccaaga gaactttgag  
60

cccttcatga agggcgatgg gtctgtgag gacttcatcc nagaaggga aggacntcaa  
120

gggggtntnn gaatnngcn nnnanggaag aaantnnaac tcnccatcan ctannggncc  
180

aangt  
185

<210> 294  
<211> 286  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 294

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ttaataagat gttctatddd ctggatgat ataaaattat ctctacttaa tgtcataact  
120

ggcaaaaaaa aaactatcat tgcaaatgcc tcccagtgaa accaataact tctcanatat  
180

ttagaattat tgggtataac tcaactaacct agtttcttaa natcanttta anatttgatt  
240

tatngtanag cantggnaa tgatgcenct ctnatgttgt ttinnac  
286

<210> 295  
<211> 225  
<212> DNA  
<213> Rattus norvegicus

<400> 295

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ggtgccatgc agccccgaat gctcctcacc gtggccctcg tggctctcct ggctctgccc  
120

cgagctgatg agggagaggg atccttgctg ctgggctcta tgcagggcta catggaacaa  
180

gcctccaaga cgggccagga tgcactaagc agcatgcagg agtct  
225

<210> 296  
<211> 278  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 296

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60

nttccatcaa ntatcanaca naaattgaca agccatccca natgcangtg acgngtgccc  
120

aggacaacag catcagtgtc aggtggctgc cttcaattct nctgtggaca ggtaccgagg  
180

nccagcggtt ccncaaaant gggctactgac naacanaatc tcaaactgtc nagtccagat  
240

canacagaga tgnccattga agngtgcaac ccaccgtg  
278

<210> 297  
<211> 290  
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<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 297

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60

agagaagttc gaggtggana ggaaacctca ttgccacat gaacttctcc ggcaagtacc  
120

aagtgcagag ccaagagaac tttagccct tcatgaaggn nannggngctg nctnaggngt  
180

tcatncngaa angganggnc atcaaggggg tgcagntat nctgcatgan gggantctnt  
240

caaathanca ncactatgng tncaagtgat cnaatgagtt cacttggggc  
290

<210> 298  
<211> 296  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 298

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60

gccagttga ggttaatcga agtctcgtcg caggetctgc tgtaagtctg gcctcttggc  
120

ctcacatctt ctttgtggga tccttccta tctccagctt cctcagctgg tcagggagat  
180

ttggtccaga actagaagcc ttaataatct gagcaggtaa gagaggagta aaatgtacag  
240

tcttggacat tgactaaagg gtctgcaga ggatatcaag gtaagtggct tggagg  
296

<210> 299  
<211> 277  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 299

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60

gtccctccg gctgcttggg aaacggagcc ttccagaagg ggtggtggat gcattgagat  
120

ctacagcacc aagatcagct gcaaggtagac ctcccgttt gctcacaatg ttgtcaccac  
180

aagggtgtc aaccgtgcag acaaggccaa gaagtttctt ttgatgtgga ctgccaaga  
240

cagcctncat caccaacttc accttgatat ngatggg  
277

<210> 300  
<211> 287

<212> DNA  
<213> Rattus norvegicus

<400> 300

ctcagttttct gaagagaagc accctggcac agttcttctg agttttggac ctaggtctac  
60

aaccatgaag gtagcaatta tctttcttct cagtggcttt ggccctgctc aatttagcag  
120

gtaacactac agctaagggtg attgggaaaa aggctaattg ccctaataca cttgttggat  
180

gccccaggga ttatgatcct gtgtgtggta ctgacggaaa aacttacgcc aatgaatgca  
240

ttctatgctt tgaaaacagg aaatttggaa catctatccg cattcag  
287

<210> 301  
<211> 85  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 301

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60

gcccaggatg ttcttgaaag ggctg  
85

<210> 302  
<211> 295  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 302

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60

ccaacccagt gaggagccca ggatgtncn gaaggctgtg gtgctgaccg tggccctggt  
120

gjcacacacc gggacccagg ctgaggtcac ttcgacnng gtygccaatg tgatgtggga  
180

ctacttcacc cagcnaagca acaatgccaa ggaggctgtg gaacaactgc agaagacaga  
240

tgtcactcaa cagctcaata cctctttcca ggacaaactt ggaacattaa cacct  
295

<210> 303  
<211> 279  
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<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 303

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60

aggtgacaac cagggcatcc cgatcatgtc caacataaag ctgagagaag aacagcgcac  
120

aaccacaact tccccctgga tgtttccaga tcaaccagtg tggcctgaag accacgtgtt  
180

catttccaca ccaaacttca cnacacaggc caagacttgc agcgtttttt tgcagatctt  
240

cattttgaag aaggctggca catgtttcta cagtctcgt  
279

<210> 304  
<211> 306  
<212> DNA  
<213> Rattus norvegicus  
  
<400> 304

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60

tgttccccga tactgggctg agtgccggca gtacagtgtg acagtggctc tgtatgtggg  
120

tgaagtcttg cgatacttgt gtaatgtccc agggcaacca gaagacaaga aacatacagt  
180

gggtttcgca ttgggcaatg gacttcgggc agacgtgtgg gaaaacttcc agcaacgatt  
240

tgggtccatt cagatctggg aactctacgg ctccacagag ggcaacgtgg gcttaatgaa  
300

tatggg  
306

<210> 305  
<211> 296  
<212> DNA  
<213> Rattus norvegicus

<400> 305

gggtttctct gtatttacct ctacaagatc cctggatggt gtctctgggt tcttccaagg  
60

ggccttcctg ctacgtctat ttctgggtgt gttcaaggca gtccaattct acttacgaag  
120

gcaatggctg ctcaaggccc tcgagaagtt cccatccacg ccttcccact ggctttgggg  
180

ccacgacctg aaggacagag aattccagca ggttcttacg tgggtagaga aattcccagg  
240

tgcttgetta cagtggctct cagggagcaa aacacgagtc ctgctctatg acctg  
296

<210> 306  
<211> 147  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 306

tcagcttcgg tgcttcccat gagnetccc tgcaatcagn aactatgctt tccctgaggg  
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tencctgctt catcctnagc ttggccagca cagtctggac tgcagacacc ggcaccacaa  
120

ttgaattcat anaagcagga gggnata  
147

<210> 307  
<211> 312  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 307

gcattccgcta agtgcggtgt gogaactgnc gctgggtgcg gttgtcgcg tgcactgc  
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ctctcggtcc aatgagctgc accaggatga tccacgtgct ggatccacga cctttgacaa  
120

gttcagtcac gcccggtggac atggccatga ggatttgctt ggcacattca ccacctga  
180

agagtttctt gggtccttac aatgggtcttc agcgaagaca tttgtgaat aaaccgaagc  
240

ccttgaaacc gtgtctcagc gtcaagcagg aagccaaatc acagaaggaa tggaagagcc  
300

cacacagcca ag  
312

<210> 308  
<211> 284  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 308

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60

cagggggcag tcacccccaa ataacatctc cctcctgcag caggcctggc cccctcagt  
120

gtcttctgt cagtttcttt atagtcattt tctacaacc tattagccca aagaaactgg  
180

gctggagggga agacttcaga ctggacggag caccggttca gagtcagaag cggataanta  
240

gctagagggg tcttcncat cagaatacta aagggtctcc agag  
284

<210> 309  
<211> 293  
<212> DNA  
<213> Rattus norvegicus

<400> 309

gtagccactc taactagggg cgtgctgaga caagaccacc tcattctctc gctgcttttc  
60



agacaggact gtctgccga cccaccatga tccaggctgc actgttcctt ggctgtatct  
120

tactgtcctc ggtgaccgcc ttcccatgga agactcagga tgggtggcctg ccccatcagc  
180

cagctggcac agaaactgag cctacacaac tgctctacag caagagtctt cctccgacct  
240

ccagtacctg tcggaacctc ctaagcatgg cgccccctgcc cctgttagtc etc  
293

<210> 310  
<211> 208  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 310

gtccctgang cctacaccat cctgcgtgag agatgccctg etcattttga etcagagtct  
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gtccctctgc ttgtcttctn caagccatnt ggtctacct gctggcactg gtgggcctgt  
120

ggaacctcct gcgcttgctc agggagnnga nngtggttag cnatctccaa gacaagtatg  
180

tcttcatcac gggctgtgat caggcttt  
208

<210> 311  
<211> 280  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 311

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gtccctcctt gccaccnnet tctggctcct caatgtgctc ttccccccgc acaccagcc  
120

caaggctgaa cttagtaacc acacacggcc tgcatactc gtgcctggct gcatggggaa  
180

ccggctagaa gccagcttg ataaaccaa tgtggtaaac tggctgtgct accgaaanac  
240

agaggatttt ttaccacngn ctggattcan anntttcnnc  
280

<210> 312  
<211> 181  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 312

ctggaacact ttaattctgt ccacaagggc agagtgnacn aactcccagc aatctaggac  
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tncaaccttt agccttttagc ctcaactctg aggggttatgg tgatcaattt tcttgatct  
120

gaagacttgg acatggactg agacctcagt tacagacagc ctgttgtgag acttctcagc  
180

c  
181

<210> 313  
<211> 174  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 313

cacnaagcta tntataatgg ccagactata cttggtttga aggaatacct tttcatgcct  
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ttgggattgc cnaaganaac tttgcaaat gtttgtaata aagtttgtgg tgaaanacga  
120

agatttgatt tcattggctt atcccaagtc aggaacgacg cgccggctcg naat  
174

<210> 314  
<211> 289  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 314

atTTTTgttt acccactcga gaagtaagcg ccaaaggggc tagtaagaga acagacagcg  
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ctgggtggtgg ctatttgctc caggcctaac cagtggggaa gtggatttgc gggacacgtg  
120

tctcagcctg gacacttagg ggttccttagc ttgtgaagcc aatccnggtg gaaccgatgt  
180

ggatnaggnt gcantgnnnc tctgtttccc cccaaacttc cccagtaacc ttgggcaag  
240

gtggatgaac ncagngattt ttgaaaagtc aaaaacttcg gtttgttta  
289

<210> 315  
<211> 309  
<212> DNA  
<213> Rattus norvegicus

<400> 315

gcccagtgtt ctagggacca tgccatggag gaccagaca agaaagggga agccagagcc  
60

gggagcgaag tagggtctgc cagccccgag gagcaacttg acggatcagc cagcccagtg  
120

gagatgcagg atgagggatc agaggagctt cagagacag gagagcccct gcccccttc  
180

ctgctgaagg agggtggaga tgaggggcta cactcggcag agcaggatgc cgatgatgag  
240

gcagctgatg atacagatga caccagctcg gtgacctct ctgccagtct accacctct  
300

ctcagagtg  
309

<210> 316  
<211> 211  
<212> DNA  
<213> Rattus norvegicus

<400> 316

cagacctcca ggagaacctg gaagaagtc tcccagct gctagctgag aacattcgat  
60

gcttctacct tggccacagc tcacctctc cgggcgtaga ggctctagga gctgccttg  
120

acgtgcacc ttctgacca gtgectgcca agcttcgtgc taatataaag tggaaatccc  
180

cagccatatt catctatact tcagggacca c  
211

<210> 317  
<211> 282  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 317

agccggcagc cgagtcggat tgnctgctg cagacgccag gccactccag ccagcactgc  
60

cgttttcagc ccccggtgc agacagctag gaggtttat ctagtttgaa ccaggtgct  
120

ggagctcgt ccttccctct ctttttttcc acgaggtgt tttttatgt ggtgcctgc  
180

atgaaatccc aatggtgtag accagtggcg atggatctag gagtttacca actgagacat  
240

ttttcaattt ctttcttctc gtctttgctg ggaatgaaaa cg  
282

<210> 318  
<211> 261  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 318

aaggagaga aatcaatgaa ttttcaatct tgttttttta atgaggcagt gatattatag  
60

catggttaaa ctgctttaat ttacactttt gattgggtgc tggggaataa acctaaagca  
120

tggcatatta atgaagaaca tatggttaacc atgaactcca tctctggatt cttttatcgg  
180

cnatttttta aagggtgaat attcgacca gagaatgaca agtgggtttg acaacatact  
240

ctaggccttc tattaataaac a  
261

<210> 319

<211> 273  
<212> DNA  
<213> Rattus norvegicus

<400> 319

cgtaggttaca ccaggaccat ggagcccagt atcttgcctc tcttgcctc cctcgtgggc  
60

ttcttggttac tcttagtcag gggacacca aagtcctgtg gcaactccc accaggacct  
120

cgcccccttc cctcttggg gaacctcctg cagttggaca ggggggcct cctcaattcc  
180

ttcatgcagc ttcgagaaaa atatggagat gtgttcacag tacacctggg accaaggcct  
240

gtggatcatgc tatgtgggac agacaccata aag  
273

<210> 320  
<211> 205  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 320

ccaggaccat ggagcccagt atcttgcctc tcttgcctc ccttgtgggt tcttggtact  
60

cttagtcagg ggacaccnaa attccttggg aaatttcna caagnacttg ncccccttc  
120

cntntngggg aacnctgaa nttggaaana ggaggctcc tnantnctt cagnagtgt  
180

cgcgaaaaat atgganatgt ntnca  
205

<210> 321  
<211> 289  
<212> DNA  
<213> Rattus norvegicus

<400> 321

caccaggacc atggagccca gtatcttgcct cctccttgcct cctcttgcct gcttcttgcct  
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actcttagtc aggggacacc caaagtcccg tggcaacttc ccaccaggac ctctccct  
120

tccctcttg ggaacctcc tgcagttgga cagaggaggc ctctcaatt ccttcatgca  
180

gtttcgcgaa aaatatggag atgtgttcac agtacacctg ggaccaaggc ctgtggatcat  
240

gctatgtggg acagacacca taaaggaggc tctgggtggc caagctgaa  
289

<210> 322  
<211> 265  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 322

gccatttggc tccaaggac attgacctca cgcaccaagg gagtggcatt ggaaaaatac  
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ctccaacgta ccagatctgc ttctcagctc ggtgatccgg ctgaggcagc catgtgcccc  
120

agttctgttg ggaatggcct catgtttctg cctctggggg acctgctgaa aaccaggctc  
180

aaggccactg ctcacatctt cctattgcag ttctccaaag tccaaggct tttcttatt  
240

cctgtgaatg gcactgaaga agtca  
265

<210> 323  
<211> 234  
<212> DNA  
<213> Rattus norvegicus

<400> 323

gtaaaatgcc atacactgat gcagttatcc atgagattca gaggttttca gatcttctcc  
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ctattggagt accacacaga gtcaccaaag acaccatgtt ccgagggtac ctgcttccca  
120

agaacactga agtgtacccc atcttgagtt cagctctcca tgaccacag tactttgacc  
180

accagacag cttcaatcct gaacacttcc tggatgccaa tggggcactg aaaa  
234

<210> 324  
<211> 235  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 324

gaaacttggt cattctagca gcacagantc agaactgaga actggccatg gcacggaaac  
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aaccacatag ctggctgaan gctgtgctct ttgggtcctt gcttattctt atccatgtgt  
120

ggggtcagga ctcaccagag tccagctcca tcaggaccac acaanatann atnnanaaan  
180

gnaagcttga cnacgtgagg gacactaaag ctgggtgtcca nacaacanaa ngttc  
235

<210> 325  
<211> 263  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 325

aaagtcccaa ggnttggtct tattcctgtg aatggcactg aagaagtcaa tcgactgtct  
60

tattttgaca tgtgaacaga gatttcatga gtacacatct catgctgagt cacttccctc  
120

ttctcctaa tagccacagt cccacttat cagccctcca tggctctgtga tctgtgctaa  
180

tggactctgt atatgggtctc agtgcctatgt ctacagactt acatagtatg tatgggtcag  
240

gtaaacagat cacagagtgt gtg  
263

<210> 326  
<211> 300  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 326

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60

aacaggaact gatacacgag ccaaaccagc aatgtcttcc cctgcacagc ctgcagttcc  
120

tgccccactg gccaaactga agattcaaca caccaagatc ttnataaaca atgaatggca  
180

tgattcagtg atggcaagna attacctgtc cttaaccctg caatgaggag gtcacttgac  
240

atgtggaaga agggacaagg cagatgttga caagctgtga agccgcaaga caggctttcc  
300

<210> 327  
<211> 350  
<212> DNA  
<213> Rattus norvegicus

<400> 327

attggtgtta acacagatga gtactgttgc accattccta tggtcatggg cactgctcaa  
60

ataataaagg agctatccag agagaacctg caggctgttc taaaggatac agcagcacia  
120

atgatgttc ctctgagtg tggtagacctg ctcatggaag agtacatggg gaacactgat  
180

gattcccaga ccctacaaat acagtacaca gagatgatgg gagacttcct gtttgtgac  
240

cctgcactcc aagtagcaca ctttcagcgt toccatgcc cgtgtctactt ctatgagttc  
300

caacatgcac ccagctattc aagaatgtca ggccacccca gtgaagggtga  
350

<210> 328  
<211> 258  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 328



agantgtnga gcgagcnaag naatatgtcc ttgganancc tctgnnccaa gnaatanatc  
60

agggccctca gattnacaag gagcaacatg ataaaatcct tgatctcant gagagtggga  
120

agaangaagg agccaanctn gagtgtggtt taggacgcng ggggnacaaa ggcttcnttg  
180

tccancccn agtcatctcc aatgtgacng atgagatgng cattnccnaa gagngatat  
240

ttggancagn gcaacaaa  
258

<210> 329  
<211> 245  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 329

gaaatgatgt ggccagggtc atcaactggt tggagggnaga atttaactac ccctagaca  
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atgtccacct cttaggggtac agtcttgag cccatgctgc tggcgtggca ggaagtctga  
120

ccaacagaag gtcaatagaa ttactggctt ggatccagct gggcctaact ttgagtatgc  
180

agaagcccct agtcgccttt ctctgatga tgcggatttc gtagatgtct tacacacatt  
240

tacca  
245

<210> 330  
<211> 191  
<212> DNA  
<213> Rattus norvegicus  
  
<400> 330

gattatttgt agccaccatg agagactttg ggataggaaa gcagagtgtg gaggatcaga  
60

taaaggagga ggccaaatgt ttagtggagg aactgaagaa tcatcaggga gtctccctgg  
120

acccaacgtt cctcttccag tgcgtcacag gcaacataat ctgctccatt gtctttggag  
180

agcgctttga c  
191

<210> 331  
<211> 265  
<212> DNA  
<213> Rattus norvegicus

<400> 331

aggaagccct gcagagcatc agaggcccag ctagagggac aacacagagg agtaatttgc  
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tgacagacct gcagggatgg acctgctttc agctctcaca ctggaaacct gggctctcct  
120

ggcagtcgtc ctggtgctcc tctacggatt tgggacccgc acacatggac ttttcaagaa  
180

acaggggatt cctgggccc aacctctgcc tttttttggc actgtgctga attactatat  
240

gggttttatgg aaattcgatg tggag  
265

<210> 332  
<211> 296  
<212> DNA  
<213> Rattus norvegicus

<400> 332

gactgctgga accaacgtcc tctcttacct tccaccttct tctgtcacct ctaccaagg  
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caccatgtcg caagcccggc ctgccactgt gctgggtgcc atggagatgg gtgcgcgcat  
120

ggatgtgacc tccagctccg cgtcggtgcg cgccttctg cagcgcggcc acacggagat  
180

agacaccgcc ttcgtgtatg cgaacgggtca gtctgagacc atcctaggag acctggggct  
240

cggactgggc cgcagcggct gcaaagtaaa aattgccacc aaggctgccc caatgt  
296

<210> 333

<211> 214  
<212> DNA  
<213> Rattus norvegicus

<400> 333

gagatgttcc ctgtcatcga acagtatgga gacattttgg taaaatactt gaggcaagag  
60

aaaggcaaac ctgtccctgt gaaagaagtg tttggtgcct acagcatgga tgtgatcacc  
120

agcacatcat ttggagtga tgttgattcc ctcaacaacc cgaaggatcc ttttgtggag  
180

aaagccaaga agctcttaag aattgatttt ttg  
214

<210> 334  
<211> 183  
<212> DNA  
<213> Rattus norvegicus

<400> 334

ggcagcattg atccttatgt atatctgcc tttggaaatg gaccagga ctgcattggc  
60

atgaggtttg ctctcatgaa tatgaaactc gctctcacta aagttctgca aaacttctcc  
120

ttccagcctt gtaaggaaac acagatacct ctgaaattaa gcagacaagg acttcttcaa  
180

cca  
183

<210> 335  
<211> 174  
<212> DNA  
<213> Rattus norvegicus

<400> 335

attggcacca aggagggaat cctgcagtac tgccaagagg tctaccctga actgcagatc  
60

acaaacgtgg tggaagccaa ccagccagtg accatccaga actggtgcaa gcggggccgc  
120

aagcagtgca agaagcacac ccacatcgtg attcttaccg gtgcctagtt ggtg  
174

<210> 336  
<211> 241  
<212> DNA  
<213> Rattus norvegicus

<400> 336

atttgggcat ggggaaaagg aacattgagg atcgtgttca agaggaagca cggtgcttg  
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tggaggaact gaggaaaacc aatgggtcac cctgtgaccc cacgtttatc ctgggctgtg  
120

ctccttgcaa tgtcatctgc tccattatct tccagaatcg ttttgattat aaagatcagg  
180

atcttcttaa cttgatggaa aaactcaatg agaacatgaa gattttgagc agtccttgga  
240

C  
241

<210> 337  
<211> 289  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 337

atgaaggctc ttgtgcccac tggcttttca gccttccctt ccgagctact gcatgcccc  
60

gaaaaagtgg gtgaagggtca agtaccocaa actcatctcc tattcctaca tggaacgtgg  
120

gggccacttt gctgcctttg aagagcccaa gcttctggcc aggacatccg caagttcgtg  
180

tccctggctg agctgnagta ntnacggntt annaaantgt ggctttagna naancctggt  
240

tccccanagn aannttgggn aacccccctn gggaaaaant tntccccc  
289

<210> 338  
<211> 243  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 338

tgggcagaaa ggaagccctg cagagcatca gangcccagc tagagggaca acacagagga  
60

gtaatttgct gacagacctg cagggatgga cctgctttca gctctcacac tggaaacctg  
120

ggctctcctg gcagtcgtcc tgggtgctcct ctacggattt gggaccgcga cacatggact  
180

tttcaagaaa caggggattc ctgggccccaa acctctgcct ttttttggca ctgtgctgaa  
240

tta  
243

<210> 339  
<211> 289  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 339

gcagaaaagga agccctgcag agcatcagag gccagncag agggacaaca cagaggagta  
60

atttgctgaa cagacctgca gggatggacc tgctttcagc tctcacactg gaaacctggg  
120

tcctcctggc agtcgtcctg gtgctcctct acggatttgg gaccgcgaca catggacttt  
180

ncaagaaaca ggggattcct gggcccaaac ctctgccttt ntttggcatg tgctgaattn  
240

ctatatgggt ttatggaaat tcgatgtgga gtgccataaa aagtatgga  
289

<210> 340  
<211> 289  
<212> DNA  
<213> Rattus norvegicus

<400> 340

atttaagggt atctatctca tcagaaatcc cagagatggt cttgtttctg gttattattt  
60

ctggggtaag acaactcttg cgaagaagcc agactcactg ggaacgtatg ttgaatgggt  
120

cctcaaagga aatgttccgt atggatcatg gtttgagcac atccgtgcct ggctgtctat  
180

gcgagaatta gacaacttct tgttactgta ctatgaagac atgaaaaagg atacaatggg  
240

aaccataaag aagatatgtg acttcctggg gaaaaaatta gagccagat  
289

<210> 341  
<211> 278  
<212> DNA  
<213> Rattus norvegicus

<400> 341

atggaatacc tggatatggt gttgaatgaa accctcagat tgtatccaat tggtaataga  
60

cttgagagag tctgtaaaaa agatgttgaa atcaatgggtg tgtttatgcc caaagggta  
120

gtggatcatg ttccatctta tgcctctcac cgtgatccac agcactggcc agagcctgag  
180

gaatttcgcc cagaaagggt cagcaaggag aacaagggca gcattgatcc ttatgtatat  
240

ctgccctttg gaaatggacc caggaactgc attggcat  
278

<210> 342  
<211> 312  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 342

cggtcggtac cggagagcgc aggttgatc accaactggt gggactctca cgaagacacc  
60

agtgccacca tgctgange cgtgggtgaa gaagtgtctc tttcagcac gacggacatg  
120

gttctgtttt ctctcatcgt gggggctctg acctactggt tcctcttttag aaagaagaaa  
180

gaagagatac cggagttcag caagatccaa acaacggccc caccgtcaa agagagcagc  
240

ttcgtggaaa agatgaagaa aacgggaagg aacattatcg tattctatgg ctcccagacg  
300

ggaaccgctg ag  
312

<210> 343  
<211> 287  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 343

agctagttag gcctctgggg ctgcgaccta cctcgcagag gggtttgac taaggcgtg  
60

ggcgccgtga ctccgggcgc tgtggaccat ggctccgccc caggcgccca acagggaccg  
120

tgcangccag gaggatgagg accgttgga acacgggggg accgcaaggc ccggaagccc  
180

ctgggtggaga agaagcgacg cgcgcggtac aacgagagtc ttcaggagtt gcggctgctg  
240

ctagcgggca ccgngtgcag gccaaagctag agaacgccga ggtgctg  
287

<210> 344  
<211> 232  
<212> DNA  
<213> Rattus norvegicus

<400> 344

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ggacttcctg gcccgctttg agggcctgaa gaagatctct gctacatga attgcagccg  
120

ctacctctca acacctatat tttcgaagtt ggcccaatgg agtaacaagt aggccttgc  
180

tacactggca ctacagaga ggacctgtcc acattggatc ctgcaggcac cc  
232

<210> 345  
<211> 223  
<212> DNA  
<213> Rattus norvegicus

<400> 345

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120

gtacttattg aaatacaatc aagagacctg ctgaatattt tgatgcgttc tcaaaagtgt  
180

atggctcctgt atttactctt tactttggca tgaagccac tgt  
223

<210> 346  
<211> 278  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 346

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gatcctgcag gcaccctggc cttctgcact gtggttctct ctcttctctg ctcccttctc  
120

cagctttgtc agccccatct cctcaacctc accccagtcg tgcccacata gtcttcattc  
180

tccccacttt ctttcatagt ggnccccctc ttatttgaca ccttaacaca acctcacagt  
240

ccttttctgt gattgaggtc tgccctgaac tcagtctc  
278

<210> 347  
<211> 295  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 347

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actctcacga agacaccagt gccaccatgc ctgaggccgt ggctgaagaa gtgtctctat  
120

tcagcacgac ggacatgggt ctgtttttct tcctcgtggg ggtcctgacc tactgggtca  
180

tctttagaaa gaagaaagaa gagataccgg agttcagcaa gatccaaaca acggccccac  
240

ccgtcaaaag gagcagcttc gtggaaaaga tgaagaaaac gggaangaac ttatc  
295

<210> 348  
<211> 230  
<212> DNA  
<213> Rattus norvegicus

<400> 348

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ctggttgtct ctgttaattt cttttgatag taaccttgc tctgtaattt gatcaagaat  
120

ttttcatgaa aatgtgaact attgtgacaa ctttaattgt agatttggtt tcagatgttt  
180

tagatgcatt attctacact aaatgttaca tggaaaaaat gtgaataaac  
230

<210> 349  
<211> 282  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 349

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ggtcggttta gcgtcctcgc ctgngtgcc caccgcgcgc tcgtcgagag cccgcgcagg  
120

acccgggaca ctttcagac atggagaatg tcgttcgcag atgccattc ttatcccag  
180

tccctcaggc nttctgcag aaggcagggg aatctctgct gttctatgct caaaactgcc  
240

ccaagatgat ggaagtcggg gccaaagccgg ctctctggac cg  
282

<210> 350  
<211> 280  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 350

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60

ccgccatggg tctggagctt ctacctggac ctgatgtccc agcnntgccg tgccgtctac  
120

atcttcgcca agaagaacgg catccccctt cagctgcgta ccatcgagct gcttaaaggt  
180

cagcattaca ctgatgcctt tgcccagggtg naccctttga ggaaggtgcc ggctttgaag  
240

gatggggact tcgtcttggc agagagtgtg ccatcttgct  
280

<210> 351  
<211> 309  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 351

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ctttgactga nacgaagacc actgtggagc tccttcccgt gaatggcgaa ttcagcctgg  
120

atgatctcca accgtggcat ccttttgggg tggactctgt gccagccaat acagaaaatg  
180

aagggtctgg gttgacaaac atcaagacag aagagatctc agaagtgaag atggatgcgg  
240

agtctggaca tgattcangc ttccaatccg ccatcaaaaa ctggtggtct tgcagaagng  
300

tggtgtcaaa  
309

<210> 352  
<211> 228  
<212> DNA  
<213> Rattus norvegicus

<400> 352

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gccgcagtgg gggagagcct cttccaggag gcccatgaag tcgtcctgaa ggccaaagat  
120

atgcctccct tgatggaccc gaccttgaag gagaaactga agctctctgt tcaatgctg  
180

ctgcactgag ggaacagcct gaagtcaagg gaaacttggg gtgtgcgt  
228

<210> 353  
<211> 298  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 353

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cctggtcaga ggccatgcaa aagttcatgg tcattcttoca ccaggacccc gtcccttacc  
120

cctcttggga aacctcttgc agatggacag aggaggcttt cgtaagtctt tcattcagct  
180

tcaagaaaaa cacggagatg tgttcacagt atactttgga cctaggcctg tggatcatgct  
240

gtgtgggaca cagaccataa gggaggctct ggtggacatg ctgaggnttc tctggcgg  
298

<210> 354  
<211> 326  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 354

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tactactttc aaggcagggg aaggatggag tcgatccgct ggctgctggc tacagctgga  
120

gtggagtttg aagaagaatt tcttgagacg agagaacaat atgagaagtt gcaaaggat  
180

ggatgcctgc tttttggcca agtcccattg gtggaaatag acgggatgct actgacacag  
240

accagagcca tcctcagcta cctggccgcc aagtacaact tgtatgggaa ggacctgaan  
300

gagagagtca ggattgacat gtatgc  
326

<210> 355  
<211> 274  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 355

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aagttcatgg tcattctcca ccaggacccc gtccctacc cctcttggga aaacnctttg  
120

aagaatggac agaggaggct ttgtaagtct ttcattnagc ttcaagaaaa acacggagat  
180

gtgttcacaa gtatacttgg aactaggcct gtggtcacgc tgtgtgggac acagaccata  
240

agggaggctc tgggtggacat gctgangctt ctct  
274

<210> 356  
<211> 148  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 356

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60

gagagcgcag gttgtatcac caacatgggg gactctcacg aagacaccag tgccaccatg  
120

cctgaggccg tggctgaaga agtgtctc  
148

<210> 357  
<211> 302  
<212> DNA  
<213> Rattus norvegicus

<400> 357

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aagaccgcct tggcaaaaga caggacaaa aaccggtact tgccctgcctt tgaaaagggtg  
120

ttgaagagcc atggccaaga ctaccttgta ggtaacaggg tgaccgggt agacatccac  
180

ctgctggaac ttctctcta tgttgaagag tttgatgcca gccttctgac ctctttccct  
240

ctgctgaagg ccttcaagag cagaatcagc agcctcccca atgtgaagaa gttcctgcag  
300

cc  
302

<210> 358  
<211> 286  
<212> DNA  
<213> Rattus norvegicus

<400> 358

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ccaagatcag gtatgaatct ggagatcacg tggctgtgta cccagccaat gactcagccc  
120

tggtcaacca gattggggag atcctgggag ctgacctgga tgtcatcatg tctctaaaca  
180

atctcgatga ggagtcaaac aagaagcatc cgttcccttg ccccaaccacc taccgcacgg  
240

ccctcaccta ctacctggac atcaactaac cgccacgcac caatgt  
286

<210> 359  
<211> 320  
<212> DNA  
<213> Rattus norvegicus

<400> 359

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ggccatcaca gaactgatgc atcctgtcag tgctggctgc aaaatcttcg agagccgacc  
120

caaactggct gcgtggcgtc aggggtggaa gccgcagtgg gggagagcct cttccaggag  
180

gcccataaag tcgtcctgaa ggccaaagat atgcctccct tgatggaccc gaccttgaag  
240

gagaaaactga agtctctgtt caatgctgct gcatgaggga acagcctgaa gtcaagggaa  
300

acttgtgtgt gcgtgtgtgt  
320

<210> 360  
<211> 288  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 360

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cttcccacag cctccgccat ggggtctggag ntctacctgg actgatgtcc cagccctgcc  
120

gtgccgtcta catcttcgcn aagaagaacg gcatcccttc cagctgcgta ccacgagct  
180

gcttaaaggt cagcattaca tgatgcnttg cncaggtgaa cntttgngga aggtgccggc  
240

nttgaagcng gagattcgtc ttgcccaanna tgtggcanen tgctgtat  
288

<210> 361  
<211> 272

<212> DNA  
<213> Rattus norvegicus

<400> 361

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ctctgaacca ggagtcattg aagtcaaacc caagctctac tactttcaag gcaggggaag  
120

gatggagtcg atccgctggc tgctggctac agctggagtg gagtttgaag aagaatttct  
180

tgagacgaga gaacaatatg agaagttgca aaaggatgga tgcttgcttt ttggccaagt  
240

cccattggtg gaaatagacg ggatgctact ga  
272

<210> 362  
<211> 286  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 362

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60

actcactaga tgtgtggagt aggagctacc accctccac cctcgtcc ctgtaatcac  
120

ctaacttctg ccgacctca cctctggtgg ttctgctg gctggacac agggaggccc  
180

agggactgac tctggcctg agtngtgccc tctgggccc ctaagcagag tccggtccat  
240

tgtatcaggc agcccagccc caaggacat ggcaagaggg attgac  
286

<210> 363  
<211> 288  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 363

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gctgaaaaaa ttaataaaga ccttggaatt gtttttagcc atggaaatag atggaaagaa  
120

ataagacgct taccctcacg actctgcgga atttgggcat gggganaagg aacattgagg  
180

ntcgtgttca anaggcaanc ccggnancct nggggaggac ctgnggaaan ccatggggcn  
240

caccgtgnaa cccangtnt atccctgggc tgngcncctt gnannacc  
288

<210> 364  
<211> 237  
<212> DNA  
<213> Rattus norvegicus

<400> 364

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tgcaggacag gagccgcatg ccctacacag atgccatgat tcatgaggtc cagaggttca  
120

ttgacctcat tctaccaac ctgccacatg cggtagacctg tgacattaag ttcaggaact  
180

acctaatacc caagggaaca acaataataa catcactctc atcagtgtcg catgaca  
237

<210> 365  
<211> 304  
<212> DNA  
<213> Rattus norvegicus

<400> 365

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ttctgaaaac tcgggatgac ctggccaggc taaggaaatga tgggagtttg atgttccagc  
120

aagtgcccat ggtggagatt gatgggatga agctggtgca gaccagagcc attctcaact  
180

acattgccac caaatacaac ctctatggga aggacatgaa ggagagagcc ctcatcgaca  
240



tgtatgcaga aggagtggcg gatctggatg aaatagttct ccattaccct tacattcccc  
300

ctgg  
304

<210> 366  
<211> 218  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 366

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60

gcgcaggacc cggcgacact ntgcagaent ggagactgtc gtttcgcaga tgcccattct  
120

tatccccgagt ccctcaggcn tttctgcaga aggcagggaa atctctgctg ttctatgctc  
180

aaaactgccc caagatgatg gaatcggggc naanccgg  
218

<210> 367  
<211> 269  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 367

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actctggaga nagnnccgct aggagaagga agctcnctcc tggccccact cctctccna  
120

ttatcggtaa tttccctccn gatagatgtg aagaacatca gccaatccta accaagtttt  
180

caaaaaccta tggccctgtg ttcaactctgt atttgggctc acageccnct gtcattttgc  
240

atggatntga agcnataaag gagctctgt  
269

<210> 368

<211> 270  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 368

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cagatctttg tgaaaacctt aactggtaag accatcacc tggaggatga gccagtgac  
120

accattgaaa atgtcaaggc aaagatccag gacaaggagg gcatcccccc tgaccagcag  
180

aggctgatct ttgcaggcaa gcagctggaa gatggccgca cctgtttcag actacaacat  
240

ccagaaggag tccaccntgc acctggctct  
270

<210> 369  
<211> 238  
<212> DNA  
<213> Rattus norvegicus

<400> 369

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60

actgtggaag cagaattttc agagaagaaa ccttcctcct ggccccacac ctcttcctat  
120

cattggaaat attcttcaga tagatcttaa ggacatcagc aaatctctga ggaatttttc  
180

aaaagtctat ggccctgtgt tcacctgta ctttggcagg aagcctgctg tgggtgta  
238

<210> 370  
<211> 260  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 370

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ccaggtacct gaaaaccagt ttcagggaca gcagtggaga acatactcta ggcaaacata  
120

ctggcctggtt tccattataa caagatacct aaggccaact actttnttta ccaagagaag  
180

aggtttggtta cagcacaaga tgaggtggcc ccgtcgtag cccttgagg gccatgtgga  
240

aaataacacg tggtagggga  
260

<210> 371  
<211> 283  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 371

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atgtagaagc gaccgtccnc gccacaacc agcgtggcct cctgcctcaa cgcgggtcc  
120

acgggtggaga cgatgctttg gatgaaatc tccgatagt tagcgttgcc ctggaacacc  
180

tncactcgt tccgaaccc gctggtgcc ggcttctgat ccgntatgc ctgcgtcttc  
240

actgtcacga tcttcacat ggtggccggg gctgcgnggc gac  
283

<210> 372  
<211> 273  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 372

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tggcattccg gaagccaaga ngcctcttta tcagnatcca cganaaagg natattgctt  
120

cagttctgaa cgcattggcca gaagatgttg tnanngctat tgtggtgact gatgggatag  
180

nggatectnc ggntngggcg acctttgtnn tannggggtg ggcattcctg ggggtgtaaag  
240

ggteccctgna aacaggttng ggggggtngat ccc  
273

<210> 373  
<211> 301  
<212> DNA  
<213> Rattus norvegicus

<400> 373

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60

gcagccctgt ccgcgctatt tatatcttcg ccaagaagaa caatatcccg ttccagatgc  
120

atactgtgga gctgcgcaag ggtgagcacc tcagcgatgc ctttgcccag gtgaacccca  
180

tgaagaaggt accagccatg aaggatgggtg gcttcacett gtgtgagagt gtggccatcc  
240

tgctctacct ggcgcacaa gataagggtc ctgaccactg gtacccccaa gacctgcagg  
300

c  
301

<210> 374  
<211> 309  
<212> DNA  
<213> Rattus norvegicus

<400> 374

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cactctggag acagagctct aggagaagga agtccctcc tggccccact cctctcccaa  
120

ttattggtaa tttctccag atagatgtga agaacatcag ccaatcctta accaagtttt  
180

caaaaacctt tggccctgtg ttcactctgt atttgggtc acagccact gtcattattgc  
240

atggatatga agcaataaag gaagctctga ttgataacgg ggagaagttt tctggtagag  
300

gaagctatc  
309

<210> 375  
<211> 298  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 375

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60

cagcccctgc atgcaggata gaaaacacat gccctacaca gatgcatga ttcagtaggt  
120

acagagattc attaactttg tcccgaccaa cctgccccat gcagtgcct gtgacattaa  
180

attcaggaac tacctcatcc cgaaggaaca aaagtgttaa catcactgac atcagtgtg  
240

catgacagca aggagtcccc naaccagag atgtttgacc ctggccactt tctagatg  
298

<210> 376  
<211> 234  
<212> DNA  
<213> Rattus norvegicus  
  
<400> 376

cagacatgc agcccctgca tgcaggatag aaaacacatg ccctacacag atgcatgat  
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tcatgaggga acaaaagtgt taacatcact gacatcagtg ctgcatgaca gcaaggagtt  
120

ccccaaacca gagatgtttg accctggcca ctttctagat gagaatggaa actttaagaa  
180

aagtgactac tttttgcctt tctcagcagg aaaacgagct tgtgttgagg aggg  
234

<210> 377  
<211> 267  
<212> DNA  
<213> Rattus norvegicus

&lt;400&gt; 377

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gtcgggtgctg ggctcggcga ttttccttac acgaaaaccg aagatgtcag actatgggga  
120

aatgaagag gatgactcaa gcaatgaaat gcctttttct acaagtgaag actctgattt  
180

agcgatggaa agggctgagc ctattaaagg gttttatagc aagacaattg taaagtattc  
240

agaaaattct gttccattac tcagagg  
267

&lt;210&gt; 378

&lt;211&gt; 249

&lt;212&gt; DNA

&lt;213&gt; Rattus norvegicus

&lt;223&gt; unsure at all n locations

&lt;400&gt; 378

aatccggnag aggateccacc tgagacctga ggnccgctta ttcttctttg tcaacaacac  
60

tatccctccc accagtgcta ccatgggaca gctgtatgag gacaaccatg aggaagacta  
120

ttttctgtat gtggcctaca gtgatgaaag tgtctacggg aatgaggca gaagcccagc  
180

agatgggagc gcctggactt gggggtaggg gaggggtgcg tgtgggactt ggggaaccag  
240

agggagggc  
249

&lt;210&gt; 379

&lt;211&gt; 292

&lt;212&gt; DNA

&lt;213&gt; Rattus norvegicus

&lt;400&gt; 379

gaagggagct cagcacgttc agccctgcaa ggggcagtag acaaaattga gagtaaagct  
60

cgaagagaga cttgttttaa gaaaacggca atggatttga tcccaaactt ttccatggaa  
120

acctggctgc tcttggttat cagcctgggtg ctctctacc tatatggaac tcattcacat  
180

ggaattttta aaaagttggg aattcctggg cccaaacctt tgcctttctt ggggacgatt  
240

ctgcttacag gaagggctct gggaattgac aaatactgcc ataaaaata tg  
292

<210> 380  
<211> 168  
<212> DNA  
<213> Rattus norvegicus

<400> 380

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tctgtacttc acccaaagga tatcgatata actccagttt tcaatggatt tgctctctg  
120

ccaccatttt atgagctgtg cttcattcct ctctaaagag atcaaatt  
168

<210> 381  
<211> 298  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 381

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acctncgggc aagaccagcc tctcccagag catccccacc gogaaggcan accttctcca  
120

gagcataccc cagcggagcg nacccttccc cagagcatcc ccgccgcaa gcgcaacctt  
180

ccagaagcag agagcggcga catggccaag aaaacagcga tcggcatcga cctgggcacc  
240

acctactcgt gcgtgggcgt gttccagcac ggcaaggtgg agatcatcgc caacgacc  
298

<210> 382  
<211> 297

<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 382

ananaataga agaacaccag gaatcattgg atgttacaaa cctcgtgat tttgttgatt  
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attacctgat taaacaaaaa caggcaaaca acatogaaca atcagaatat tcacatgaaa  
120

atctgacatg cagtatcatg gatctcattg gtgcagggac agagacaatg agcacaacat  
180

tgagatatgc tctcctgctt ctgatgaagt acccacatgt cacagctaaa gtccaggaag  
240

agattgaccg tgtgattggc agacatcgca gcccctgcat gcaggataga aaacaca  
297

<210> 383  
<211> 234  
<212> DNA  
<213> Rattus norvegicus

<400> 383

aacgcagccg actctgcagc attgccatgt caggaatgat attgggaatc tttgctgtgc  
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tccttgtggg cggcatcatt agtgaagccc tcgggtggcc ctttgtcttt tatactcttg  
120

gaagtattgg tgtggtctgc tgccttctct ggctcattct ggtttatgat gacctgtct  
180

ctcaccatg gataagtagc ccagaaaagg agtatatctt atcctccctg gacc  
234

<210> 384  
<211> 299  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 384

agctgccatc ttgcgtcccc gctgtgtgtgc gccttatctc agctggtctg cccgagaacn  
60



tctgagcgtg aaccttagtc ccccgcgcgg cccatttcc actccgacaa gatgaaagaa  
120

acgatcatga accaggaaaa actcgccaaa ctgcaggcac aagtgcgcat tgggtgggaaa  
180

ggaactgctc gtagaaagaa gaaggtgggtt cacagaacag ccacagcaga cgataaaaaa  
240

ctgcagtctt ccttaaagaa gttaggggta aacaatatct ctgtattgaa gaggtgaac  
299

<210> 385  
<211> 291  
<212> DNA  
<213> Rattus norvegicus

<400> 385

ctgacgttgt ctatagaaca gtggccaacc tttctggatg tgagcaggtg gactccaagg  
60

ctctggtgaa ctgtctacga ggcaagagcg aggaagagat tatgtctatt aacaaggcct  
120

tcaggatcat ctctggcata gtggatggta tcttcttcc cagacatccc aaggagctgt  
180

tggcctctgc tgactttcac cccattccca gcattattgg tgtcaacaat gatgagtatg  
240

gctggatcat tccctcgagc atgaccacca ctgactccaa gaagaaaatg g  
291

<210> 386  
<211> 304  
<212> DNA  
<213> Rattus norvegicus

<400> 386

actgagtgga cctgtgaaga atccaaattc caaacaattt tcaacatgga ttcccgtaa  
60

ttcccgagaa gagggagga gatgggtggat tatatagctg actatctgga cggcattgag  
120

ggacgtccag tgtaccctga cgtggagcct ggctaccttc gggccctgat cccaccact  
180

gccccccagg agccagaaac atatgaggac ataatcagag acattgaaaa gataatcatg  
240

ccagggtcac aactggcac agccctact tcttgetta cttccccagg ccagtccta  
300

ccca  
304

<210> 387  
<211> 264  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 387

gngcggagga agccgactgt tccggatctc tgcatagcag ggcccaacct ttgctccana  
60

gatcatggct gccgaggatg tgggtggcgac tggngnecac cccagcgagc tggagggcgg  
120

cgggctgctt caanagatnt tcacgnecgn tctcaacctg ctgctccttg gccatgcac  
180

ttcctgctct acaagatcga tcgcnngggac cagcccggtg ccaatgggga caacnactcc  
240

gacgagnngn ccncgctgnc ncng  
264

<210> 388  
<211> 267  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 388

cggaacagtc gaggctagat tgacacagct gtccgttcag accccagcac catgcccatg  
60

aactggggtt actggganat ccgtggggct agcgcacgac atccgctgc tcttgggaata  
120

cacagactcg agctatgagg agaagagata caccatggga gacgctcccg actttgacag  
180

aagccagtgg ctgaatgaga agttcaaact gggcctggac ttccccaatc tgcctactt  
240

aattgatgga tcacacaaga caccag  
267

<210> 389  
<211> 307  
<212> DNA  
<213> Rattus norvegicus

<400> 389

gtgccctcac gcagcttaat gtggcctttt cccgggagca ggccacaag gtctatgtcc  
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agcaccttct gaagagagac agggaaacacc tgtggaagct gatccacgag ggcggtgccc  
120

acatctatgt gtgcggggat gctcgaaata tggccaaaga tgtgcaaac acattctatg  
180

acattgtggc tgagttcggg cccatggagc acaccaggc tgtggactat gtaagaagc  
240

tgatgaccaa gggcgcgtac tcaactagatg tgtggagcta ggagcttacc aacctccac  
300

ccctcgg  
307

<210> 390  
<211> 248  
<212> DNA  
<213> Rattus norvegicus

<400> 390

tcttgagaa ggcattgccc gaagtgaatt gtcccttttc ttcactacca tccctcagaa  
60

ctactcagtg tccagccctg tggatcctaa caccattgat atgactccca aggagagtgg  
120

attagccaaa gtagccccag tgtacaagat ttgctttgta gcccgctgat tgtgctgagg  
180

cagtcagccg actcaattct gtccaaaatg gcccattlll tetgattctg ggagacctgc  
240

tggagacc  
248

<210> 391  
<211> 283  
<212> DNA

<213> Rattus norvegicus

<400> 391

atgggttttgg accctgtcat tccctgtgga gagctgggtg cagaagtact tcagatccct  
60

tttgtaaaca cattgagggt cagcatgggc tactccatgg agaaatactg cggccaactt  
120

ccagttccac ttctgtatgt accggttgtc aggggtgaact aacagaccat atgaccttta  
180

cagagagggg gaaaaatatg atgctttcac tgttttttga gttttggctc cagcaatatg  
240

actttgcatt ctgggatcag ttttacagta aaactctagg aag  
283

<210> 392

<211> 290

<212> DNA

<213> Rattus norvegicus

<223> unsure at all n locations

<400> 392

ggactatctc cccttaagtg ggaagggctt agtcaaatgc agtanagagc tataaaacac  
60

cgagaactct tgatgtgttg tgaaacttag agggagcagc tttttaacaa gagaactcaa  
120

gcaattgctg ccatgccggg gaagccagtc cttcactact tcgatggcag ggggagaatg  
180

gagcccatcc ggtggctcct ggctgcagct ggagtagagt ttgaagaaca atttctgaaa  
240

actcgggatg acctggccag gctaaggaat gatgggagtt tgatgttcca  
290

<210> 393

<211> 281

<212> DNA

<213> Rattus norvegicus

<223> unsure at all n locations

<400> 393

ttgcactacc ctgcaaggct gtgttgcagg gcccggaagg ctcactgttc cgaaatggcc  
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gagcagtcag acaaggatgt gaagtactac actctggang gagattcaga agcacaaga  
120

cagcaagagc acctgggtga tectacatca taagtgtacg atctgaccaa gtttctcgaa  
180

gagcatcctg gtggggaaga agtcctaaga gagcaagctg ggggtgatgc tactgagaac  
240

ttgaggacgt ccgggcactc taacggatgc acgagaactg t  
281

<210> 394

<211> 287

<212> DNA

<213> Rattus norvegicus

<223> unsure at all n locations

<400> 394

ccgctgctta tgccatggtc ctggaactgt acctggatct gctgtcgcag cctgtcgcg  
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ctatttatat cttcgccaag aagaacaata tccnttcca gatgcatact gtggagctgc  
120

gcaaggggtga gcacctcagc gatgctttgc ccagtgaacc ccatagaaga ggtaccagcc  
180

atgaaggatg gtggcttcac cttgtgtgag agtgtggcca tctgtcteta cctggcgcac  
240

aagtataagg ttctgacca ctggtacccc caagactgca ggcccg  
287

<210> 395

<211> 293

<212> DNA

<213> Rattus norvegicus

<400> 395

aagagaatcg cattaaagag aaagaaaagc aaagaatgga ctttcttcag ctgatgataa  
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actccagaa ttccaaagtc aaagactctc ataaagcatt atccgatgtg gagattgtgg  
120

cccagtcagt tatcttcatt tttgccgget atgagaccac tagcagtgtt ctttcctttg  
180

ttttgtatatt gctggccatt caccctgata tacagaagaa actgcaggat gaaattgatg  
240

cagctctccc caataaggca catgccacct atgataccct gctacaaatg gag  
293

<210> 396  
<211> 266  
<212> DNA  
<213> Rattus norvegicus

<400> 396

gttggcctcc caataagtag ggtcaacatt tagtcaaaat atgcgattgt tgcaaagctt  
60

togaaggctg gctttgtggg tacagtgtat ccatagatgc ctgaattaac tgaagatctt  
120

aactgcagat tctacacatt tctcatcctc taatggettc ctctggetgc ccagggtga  
180

agaaaacttct tcaactgtggg gaggttgctg actctggttc tccagggcct cagcagaggg  
240

aagttggcca aagcgtgggg tccact  
266

<210> 397  
<211> 259  
<212> DNA  
<213> Rattus norvegicus

<400> 397

gtcaaatggc tcccccaaaa cgatctgctt ggatcatcaa aggcctgggc gttcatcaca  
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cactccggtt cccatgggat ttatgaagga atatgcaatg gggttccaat ggtgatgatg  
120

cccttgtttg gtgatcagat ggacaacgcc aagcgcatgg aaactcgggg agctggggtg  
180

accctgaatg tcttgaaaat gactgcgat gatttggaat acgccttaa aactgtcatc  
240

aataacaaga gttacaagg  
259

<210> 398

<211> 252  
<212> DNA  
<213> Rattus norvegicus

<400> 398

gaaacttta gaaaagtgc tactttttgc ctttctcagc aggaaaacga gcttggttg  
60

gagagggcct ggcccgcacg cagttgtttc tattcttgac aaccatttta cagaacttta  
120

acctgaaatc tctggttcac ccaaaggaca ttgatacgat gccagttctg aatggttttg  
180

cctctctgcc acccaattac cagctctgct tcattccttc ctgaatagat caggcatttt  
240

ggctctactg tg  
252

<210> 399  
<211> 272  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 399

gngagccaat ggcncctctc atttttctgg ggatttggen ttcttnttg gtttttctt  
60

ttctatngaa tcagcaccat gtcagangga agctcccacc nggtcccact cctctacaa  
120

tttttgcaa tattttgcaa ntgggtgtta aaaatatcag caaatctatg tgcatgcnag  
180

cgaaagagta cgggcctggn tcaccatgta tctgggcatg aagcccactg tgggtgctga  
240

tggatatgaa gtattgaaag aagctctgat tg  
272

<210> 400  
<211> 294  
<212> DNA  
<213> Rattus norvegicus

<400> 400

catccgtggg ctggctcacg ccattcgctt gttcctggag tatacagaca caagctatga  
60

ggacaagaag tacagcatgg gggatgctcc cgactatgac agaagccagt ggctgagtga  
120

gaagttcaaa ctgggcctgg acttccccc aa tctgccctac ttaattgatg ggtcacacaa  
180

gatcaccag agcaatgcca tcttgcgcta ccttggccgg aagcacaacc tttgtgggga  
240

gacagaggag gagaggattc gtgtggacgt tttggagaac caggctatgg acac  
294

<210> 401  
<211> 276  
<212> DNA  
<213> Rattus norvegicus

<400> 401

gctgcgagca ggtctgaccc attgctctct ctgctcagag ttccccaggt ctgaagtctg  
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cctgaaagat gtcagccctc aaagctgtct tccagtacat tgacgaaaac caggaccgct  
120

ttgtcaagaa acttgcagaa tgggtggcca tccagagcgt gtccgcgtgg ccggagaaga  
180

gaggagagat cagaaggatg acggaagcgg cagtgcagat gtccagaggc tggggggatc  
240

tgtggagctg gtggatatcg ggaagcagaa gctccc  
276

<210> 402  
<211> 271  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 402

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aggnetgttn ggctaaaggc cnccttgaag cccagtgtct anagtcacac cttctttgct  
120



ctgggcccag gaggcctact ttttcttttt ctcngngaatt cctggaattct taaagataaa  
180

agaacctaga aagaaaatca aaccactttt ccttgtgggg cagatggtaa tatgggactg  
240

agaacagcaa acctgggggtc ttggagagga g  
271

<210> 403  
<211> 253  
<212> DNA  
<213> Rattus norvegicus

<400> 403

cgcactgctc ctagggcaag agccttcacc tttctacag ccaacacccat gcgcgagatc  
60

gtgcacatcc aggcgggcca atgcggcaac cagatcggcg ctaaggcaac aaatatgtac  
120

ctcgggccat cctagtggac ctggagccag gcaccatgga ctcagtgagg tcgggacccat  
180

tcggccagat cttcaggcca gacaactttg tgttcgggtca gagggtgca ggaaataact  
240

gggcaaaggg cca  
253

<210> 404  
<211> 312  
<212> DNA  
<213> Rattus norvegicus

<400> 404

cagctggctt cctacatata gttctgtgaa agagatcaga gaggaaaga aagatggcgg  
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gggattcaag ccgctgggct gcagctctcc ttctctctgc ctgtcagcaa agttattttg  
120

ctttgcaagt cggacgagta agattaaaat acaagatcgc acctccagca gtcacgggct  
180

ctctggagtt tgagagaata ttctgcgcac agcaaaaactc ttggagttt tattccgtat  
240

tcacatata gctgtggatg gctggatggg atttcaatca agtttttgca acctgtctgg  
300

gtctcctgta ca  
312

<210> 405  
<211> 245  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 405

ctgccgggtcg ctctcctgagc ctctctctggc tctgtgtctc tgtcctcagc ttccacgtcc  
60

tgcgccgacn gcgccatgga gggttaccat aagccagatc agcagaagct ccaggccctg  
120

aaggacacag ccaatcgct gcgcacacgc atccanncca ggcaccacc gcggcaggcg  
180

nggacacccc acatcttgna gtagecgengn cggagageng gtcgnnctgn tattnnnnac  
240

caggc  
245

<210> 406  
<211> 299  
<212> DNA  
<213> Rattus norvegicus  
  
<400> 406

tcatacccaa gggaacagca gtactaacat cacttacatc agtgctgcat gacagtaagg  
60

aattccccaa ccagagatg ttgaccacg gtcactttct agatgagaat ggaaacttta  
120

agaaaagtga ctacttcacg cctttctcag caggaaaacg gaaatgtgtg ggagagggcc  
180

ttgccagtat ggagctgttt ttgttcctga ccaccatttt acagaatttc aaactgaaat  
240

ctctgtctga tccaaaggac atcgatataa actcaatacg ttctgagttt tcatcaatc  
299

<210> 407  
<211> 290

<212> DNA  
<213> Rattus norvegicus

<400> 407

ggaaggggaa gaatgccagt ttttgaaaag gctactaaag gactgggcat tagtttttagc  
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cgtggaaatg tatggagagc cacaagacat ttcacagtca ataccctgag gagtttgggc  
120

atggggaaac ggaccattga gatcaaagtg caagaggaag cagagtggct agtgatggaa  
180

ctgaagaaaa ccaaaggctc accctgtgat cccaaattca tcataggatg tgctccctgc  
240

aatgtcatct gctccattat cttccagaat cgtttgcatt ataaagataa  
290

<210> 408  
<211> 221  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 408

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ttttgntngc tngggcantg gnaaccngga agnccnntgg aganttccan aaaagaaaaa  
120

atntaggggc acaaattgtg gaaaaanent cacaancttn gggnananne cccctgntgc  
180

gcctnttggt gggctgccct atgtccaatc cagctatatt g  
221

<210> 409  
<211> 116  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 409

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60

ctgctgggtca ggagaggttc aagtgcacg cttccacaca acatangagn gnnatt  
116

<210> 410  
<211> 275  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 410

cacagcccct accagencac cctccataac tgcaccaaga ggatctatcc aacacctccc  
60

tgagcaggag gagcctgaag actccaaggg aaagagtcct gaggaaccct ttctgtgca  
120

gctggatcta accacaaacc cacagggtga cacactggat gtctccttcc tctacctgga  
180

gcctgaggaa aagaaaactgg tggctctgcc ttccctggg aaggaacagc gctccctga  
240

gtgccccggg cccgaaaagc aaagaacccc ctgat  
275

<210> 411  
<211> 300  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 411

ccctcttcaa tatcctacgc ttccctctgt ccatgcttcc catggtgncc tcatcgatcc  
60

tccaggccag tgtttctgtg gaccggctgg agaggatattt gggaggagac gatttagaca  
120

catctgccat tcgcccgcgc agcaattttg ataaagctgt gaagttttca gaggcctctt  
180

ttacttgggc ccggacttgg aagccacaat ccaagatgtg aacctggaca taaagccagg  
240

ccaatggtgg ctgtggtggg cactgtagct ctgggaaatc ctctttggta tcagccatgt  
300

<210> 412  
<211> 286

<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 412

cnagaagtta gtggagtact tgaagcagag ttcgttgatg ctgtgtttct ggatcctttt  
60

gatgtgtgtg ggctaactgg tgccaagtac tttctctccc gtcagtgggc ttcagcaggg  
120

ggatattttg tcaactatctt gaagaangct cccagtgcgc cagtcctcct tcatatgtcc  
180

ccagaggtat cttgaaactc acagatacca tgactttcaa ggaaagagtg tggaacttct  
240

ttcctaattg gggagcatgc attctgtccc agtttttcaa aactgc  
286

<210> 413  
<211> 272  
<212> DNA  
<213> Rattus norvegicus

<400> 413

agagaagcct gctgaggaaa cactggaaag ccttacctca ggcactaagt tgaaggaaaa  
60

acgacaatgg ccacaatggt agaactgagc cctacaagtg agcagtgatg gtttgccta  
120

ggctctgccag tgaataagaa gacccctccc oggaaagtcc cgagtttatg ttccatgcgc  
180

tattcaatag ccttcacgc acatatctgc aacttcacat tgatagcaca gaattccatc  
240

ataagcatca ccatggtagc catgggtcaac aa  
272

<210> 414  
<211> 103  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 414

agctccgggg gaggtcgccc acatccttca ggntgaaagc tgcagtgttg gctgtggccc  
60

tggtcttctt gacaggttgc caagcttggg agttctggca gca  
103

<210> 415  
<211> 273  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 415

aacgccctta aaactgtcat caataacaag agttacaagg agaacatcat gcgcctctcc  
60

agccttcaca aggacogtcc tatcgagcct ctggacctgg ctgtgttctg ggtggagtac  
120

gtgatgaggc acaaggnggc gccacacctg cgcgccgcgc cccacgacct cacctggtac  
180

cagtaccact ccttggacgt gattggcttt ctctggcca tcgtgttgac ggtggtcttc  
240

attgtctata aaagttgtgc ctatggctgc cgg  
273

<210> 416  
<211> 106  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 416

gaagannnac ctggacaccc agactgttgg agancntccg ggggatgtcg ctcacatcct  
60

tcaggatgaa anctgcagtg gtggctgnag gnnetggtct nectga  
106

<210> 417  
<211> 294  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 417

cactaaagca aagcagacaa ctccagctct ccacacagct ggtctctgac accttggggg  
60

acacaagggc cctagctatg gagtgcgtat tccacagaca cctatgggta ccttgggatac  
120

tgccaaaact cttaaataca tggactttta cctcagaaac ttgtcttcag atatcctgtt  
180

aatcttcagt ttttgtttgt ttttgttttt nggaggaagg cctctctcta tgtagctatg  
240

gctgtcctag aatcactctg tagatcaggc tggcctcaga ctcatgcctc tgct  
294

<210> 418  
<211> 262  
<212> DNA  
<213> Rattus norvegicus

<400> 418

cgaggtttcc aggtagcggc cggtcgcagt ctgtcccagg gtacgaccgc gccttgggca  
60

cagattcgcg gaccgggggc tgctcttta agggaggggg tggagccacg agtgaggatc  
120

gaaaagctcc agaaaacttg aggccagagc cccgcaccag ggtgcagcca tgagtgcgga  
180

ggtgaaggtg acagggcaga accaggagca atttctgctc cttgccagt cggttaaggg  
240

ggcagcactg gccacactca tc  
262

<210> 419  
<211> 145  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 419

acacaaagcn atttanantg ccagactata ottggtttaa aggaatacct tttcatgnc  
60

ctgggallca aaagncactt tnccaaaatg tnnggnaana atttgtggg cnanccccga  
120

nttcatntga ncggettanc ccagt  
145

<210> 420  
<211> 271  
<212> DNA  
<213> Rattus norvegicus

<400> 420

ctccaacctg gtgcgccacc agcggctgca caccggggaa aagccgtatg tctgcagcca  
60

gtgtggcaag gccttcatct ggagctctgt gctcatcgaa caccagcgca ttcacacagg  
120

cgagaagccc tacaagtgtg aagactgcgg caaggccttc cgaggacggt cgcatttctt  
180

ccggcactta cggacccaca cgggcgagaa gcccttctcc tgtggctcct gtggcaaage  
240

gtttggccag agctctcagc tcattccagca c  
271

<210> 421  
<211> 282  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 421

cagttagaag ttcttgggna ggccctgtgt agaccagcc tagctgagta ctgattcatt  
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ttgatgtgag tgggaagaat gggggagatt cgcagctttg tctcatcac tgttgctctg  
120

attctgggca aggagagctg ggtcctcgga gatgagaact gtttgcagga gcaggtgagg  
180

ctcagggtc aggtgcgcca gcttgagacc cgggtcaaac aacaacgggt ggtgattgca  
240

cagctcttgc acgagaagga ggtccagttc ctggatagag ga  
282

<210> 422  
<211> 272  
<212> DNA



<213> Rattus norvegicus

<223> unsure at all n locations

<400> 422

ctgaagacca acttgctctc agtgagcgac tgtgtgcagc aggtggtgga gcttctgcaa  
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gancagagca ttgttcccca caccaccatc aaaggcatcc atgaactctt tgtgccggaa  
120

aacaaaaattg atcaaatccg agctgagtta gagactctcc catcactacc aattaccaag  
180

ctggatctgc agtgggtgca gattctgagc gaaggctggg cc  
222

<210> 423

<211> 275

<212> DNA

<213> Rattus norvegicus

<400> 423

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ccccagccct gggacgctgg ttccgccatg caatcccttt cgctatcttc acgctgttac  
120

ttctttatat cagtgtatgg ctcttccatg agtggccctt tgagttgcca gctcaaagaa  
180

ctcagcagtc cggcctgtgg gaactcaagc tctcttctcc ttctccagcc ctcacctctc  
240

tgcttctgt cacctcaggt gttttacaag gctga  
275

<210> 424

<211> 279

<212> DNA

<213> Rattus norvegicus

<223> unsure at all n locations

<400> 424

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gagtatttta agccttgttt aaaacatctt tttactccan nnnnnnnnnn nnnnnnnnnn  
120

nncaaactaa atcattgtag ctaacctgta atatacgtag tagttgacct ggaaaagttg  
180

taaaaatatn gctttaaccg acacgtaaat atttcagata aacattatat tctttgtata  
240

taaaanaaag aaaannangn caatggngga atnaactct  
279

<210> 425  
<211> 288  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 425

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atangaggga atggctgccg tgtctccacc taccagatgt caggcatcgg tgacgtttga  
120

agatgtggct gtgaccttca cagatgacga gtggaagcgt ctggtacceca tgcagagagc  
180

actctacaag accgtgatgc tggagaacta tgagagcatc atctctctgg ggcttcccgt  
240

tcctcgacct gatgtgattc ttcagttcaa gagaaggggc gaatcctg  
288

<210> 426  
<211> 286  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 426

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gggggcaggc ctganggcc aatcttctg catctgacc tgggtcagcc tgacagctgg  
120

ggaccgcgta tacatccacc cctttcatct cctctactac agcaaganca nctgcgccca  
180

gctggagaac cccagtgtgg agacgtccc agagccaacc tttagcctg tgcccattca  
240

ggccaagacc tccccgtgg atgagaagac cctgcgagat aagtcg  
286

<210> 427  
<211> 235  
<212> DNA  
<213> Rattus norvegicus

<400> 427

gaggattcac tcacatttgc ttcccgctgg ccatgagtga gctgcccttt ctgagtccag  
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agggagccag agggcctcac aacaacagag ggtctcagag ctccctggag gaaggctcag  
120

ttacaggctc agaggctcgg cacagcttag gtgtcctgaa tgtgtccttc agcgtcagaa  
180

ccgtgtcggg ccttggtgga acatcaaate atgccagcag aagtgggaca ggaaa  
235

<210> 428  
<211> 249  
<212> DNA  
<213> Rattus norvegicus

<400> 428

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aaggacgttc agaactacta tgggaatgta ctgaagacat ctgcagacct ccagactaat  
120

gcttgtgtca ccccagccaa gggggctcct gagtacatcc ggaaaagtct gcagaatgta  
180

catgaagaag ttatttccag gtattatggc tgcggtctgg tggtgctga gcattctggaa  
240

aactgccgg  
249

<210> 429  
<211> 233  
<212> DNA  
<213> Rattus norvegicus

<400> 429

ctgaacttga ccaaagggag actcaggttg gaaacaaaat cccagggatg atacacggaa  
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aaactccatt aggcacagtg acatacatgt gtaattcaaa cgctgcactt gagagactga  
120

ggcaggagga gatctatcga aagggttgaga ccaactagct gtaggctagc ctgggctatg  
180

ctgttaagac cttgtcacia agtacaagaa gggagaataa aagaatattt cct  
233

<210> 430

<211> 287

<212> DNA

<213> Rattus norvegicus

<223> unsure at all n locations

<400> 430

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gtgcacatct atgttttcat atctaccggt tgggtatgcc tttgtccctg ggtagggact  
120

ggctctcttg acaagtagat gtctgttag cctgcagaca tcacatgact ctcaagaacg  
180

aatcgtgtat cctggtcctt gctcctgtgc atgcacattc cctcctctg tcccgaggca  
240

gaggcaaggg tgtgtgaggg ctatgggcag aggccatatt gtgaaga  
287

<210> 431

<211> 183

<212> DNA

<213> Rattus norvegicus

<400> 431

ctaaaattaa gatagagtga atgagacaga tatctgtaga cactgtattt tcttgtgtga  
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tcagatctag tgtggtggat gatagaagtt gaacttgctt tattgctatg tgttaaaata  
120

ttttgtttgc attaaatggc ctattgaaat gcttttctgt tctataata aaataacctg  
180

atg  
183

<210> 432  
<211> 287  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 432

tcaagagcat atgtgcggca cagagtggac ntgatggctt ttgttgttgt tttgttatgt  
60

gtgcacatct atgttttcat atctaccggt tgggtatgcc tttgtccctg ggtagggact  
120

ggctctctgg acaagtagat gtccctgtag cctgcagaca tcacatgact ctcaagaacg  
180

aatcgtgtat cctgggccct gctcctgtgc atgcacatto cctcctctg tcccaggga  
240

gaggcaaggg tgtgtgaggg ctatgggcag aggccatatt gtgaaga  
287

<210> 433  
<211> 283  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 433

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ttggaccttc accagtcng gggnggctgg gactccaca cctcaagccc gagctatgac  
120

ttacattcca ctgctgggag aagagaggcg gggcccagag tatcctgccc ttgggagtca  
180

aagaccctag gngccaggct ggcacaggga tggggaggct ggncttttat aaatatnata  
240

tcagannaa aagannaaaa naagggcggc cncgcacaag nna  
283

<210> 434  
<211> 295

<212> DNA  
<213> Rattus norvegicus

<400> 434

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aacgagcgcc tttctccaga tgatgccaat tttgtggatg ctattcatat ctttaccagg  
120

gagcacatgg gtctgagtgt gggcatcaaa cagcccattg cccactatga cttctacccc  
180

aacgggggct ccttccagcc tggctgccac ttcttgagc tctacaaaca cattgcagag  
240

catgggctta aatgccataa cccagaccat caaatgtgcc catgagcggt ctgtg  
295

<210> 435  
<211> 133  
<212> DNA  
<213> Rattus norvegicus

<400> 435

ccttgattct tttgctgtat agccctggat gtgtaatgca gacattatct aactgtgtgt  
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ggtaaccttg acatcacaga actgctagtg aacgaggtaa aaataataaa ggtacaacca  
120

gtgcatcgca aaa  
133

<210> 436  
<211> 212  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 436

accaccagtt tcgaagctgg ccggtcttgt cttagggtcga tggatgaagac aacggcatct  
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tcaccagccg acaggaacgt gcagggagag tctgggttcta gggccaactt gtgggatgct  
120

ccttgagct gggccacaag cttgggtgtt ttgcagcaact gtgtagcang cttctcctgc  
180

gactcggacc tgcccatccc ggcacacata gc  
212

<210> 437  
<211> 291  
<212> DNA  
<213> Rattus norvegicus

<400> 437

tttaataacg taatgacgcg gtccttttcc taatccctaa aaacctgtct cataaagtgt  
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aatgggggag cagccctttt ggtgttgcaa aatgaagttc caggcttcta aaatgttgcc  
120

atgtattgaa aggagctaata gccattgtaa atgttattag tttcacattt cttgagcagc  
180

ctagagtaca ggggtgaacat ttgtagatct tgtaatgatg tattgtgctg tggaagtact  
240

gtgtgtgaat agcagtagtg gggcaaaaag caatcttgtc attggaatgt a  
291

<210> 438  
<211> 262  
<212> DNA  
<213> Rattus norvegicus

<400> 438

ggataaatga gacggctcgg gtcgagtgca tttgcagggg actcgggttt ggttcccagc  
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gtccacgttg ggcagcacac aagtgtccgt aactctagct ctatgggata tgaccattt  
120

ctggcctctt cagcacctgc acaaagtggg cagacacata tacgcttaag taaaaataat  
180

taaaaaaaaac gaatctttta aacatttttt aaaagaagtg atggagtga ttcctgcctt  
240

atggcctgct ggaaatggaa ca  
262

<210> 439  
<211> 272  
<212> DNA

<213> Rattus norvegicus

<400> 439

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agtaggaaga ggggcataga gagctgtgcc tctatgggtga gcctctggga ctgaagtttg  
120

ccacqactag tgggttgaca cctgggaggc tggctaccta cctgtcttac tccctgaagg  
180

acagggttga atctctgggt tccagtcctt agggagatgg agtactgtct gtcagctgct  
240

ggctgtgctt tttgaagagg ccaaattggt tc  
272

<210> 440

<211> 284

<212> DNA

<213> Rattus norvegicus

<400> 440

acagaaccca acctgctact aatcacggag aagaatgtgg aggacaagaa taaggctaga  
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agccagagca agtgaggact gagcaaggga agggagaacc gattgccatc ggccttcattg  
120

ctctgggttag ggtgaggttg gggccaagag gactgggcct ggcagatctt caagtcattg  
180

ggaagatgga gataccactg taggggtgaa caccgggaga cctaggagat cccctcccca  
240

ccctttctct tggcctccga ttcactcctg tcccgttccc tgac  
284

<210> 441

<211> 233

<212> DNA

<213> Rattus norvegicus

<400> 441

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60



aaactccatt aggcacagt acatacatgt gtaattcaaa cgctgcactt gagagactga  
120

ggcaggagga gatctatcga aagggttgaga ccaactagct gtaggctagc ctgggctatg  
180

ctgttaagac cttgtcacia agtacaagaa gggagaataa aagaatattt cct  
233

<210> 442  
<211> 273  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 442

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tccattcaga gcaagtgttt gcncttcgcc tgcaggacaa aaaacttccc cctctgtctt  
120

ccgagatctg ggatgtccac gaatgactgt ttctccgtgt cctcngtggt ggcaaggcag  
180

ctgaagttac nganngcttc nnngaagngg nanannctgg ggagagaaaa nntncagggg  
240

gncgaggaaa agagacnctt ntnnngnaan aag  
273

<210> 443  
<211> 264  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 443

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60

tctactaacc ttgtgagatg gagcaactac tagatccttg gacttcccac tcatagctga  
120

tcattgttag ggggttggac tacagactgt aaatcatcat aacaaactcc cttactgtat  
180

agaggctatc cataagttct gtgactctag agaaccctga ctactacaga cctgtttca  
240

aaaaagaagc aaaagttagc tggg  
264

<210> 444  
<211> 283  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 444

gaggaatcca attttctgag ctccacaagc cactctgcan nntcagatag tcaccagggt  
60

cactacagga ggaattgttc catctgagag acccagcatg cattatactc gctgtctgct  
120

gcttctcctg gctggactct tggaactctc tcacagtcag ccagaccaag aagagcctga  
180

caatacaacc aaccaaact acagttgttc tcacagcaga acatctccag ctaccagatt  
240

gcctctggna atgccaaact tgccttcgc ctctaccacc tga  
283

<210> 445  
<211> 290  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 445

gaaattcaat ttgggttttc aaaattgatt cttaaganan atataccccc ataaggaaat  
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aatatcaciaa tctcataagg natggggaat acagacnagg tacnttttca ggcacattca  
120

gtgtaaatat atgtagtcat ttatactggn atattaaata atattatatt tgtgaagaca  
180

gagatttatg tcttacaatg taaatganaa acagacaaac ctaatcagat atctggctgg  
240

tgaagccatt ggtcagtgtt aggaatttcc agtcaggaga agaccctcta  
290

<210> 446  
<211> 165

<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 446

ggggaaacac attcaaagaa gaatcaggaa gagggatgtg ataggggtgct tatggatggg  
60

aaaccgagaa agganataac atttgaaatg taaatgaaaa atatccaatt aaaaaaaaaa  
120

aancaaaaccc tgcccagant tttgccngng ngacaaaaan agaga  
165

<210> 447  
<211> 173  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 447

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aggaacgtgt gcggaactgca gtccctccca agaccataga ggagtgtgag gtgattctga  
120

tgttggggact tcttggatct ggaaagaccc agtgggcact gaaatatgca aaa  
173

<210> 448  
<211> 189  
<212> DNA  
<213> Rattus norvegicus

<400> 448

gttattaagg ataaactgtt taatcaaatt aacgttgctt agttactgct gagtactctt  
60

cctcagagct ggcgtgcgga aggagaagaa gctcaaggaa cattctaacc cagttaccag  
120

aactcagata gaagactaag gtgctgtgtg acgtcctgag tattagcact gtaataaaac  
180

tgtcacatg  
189

<210> 449  
<211> 165  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 449

gtatttttnc agancaganc gtgtattgaa acataaacgt atgtgccatg aaaatcacga  
60

caaaaaacta nncngatgtn ccattcaaan gtggccttct gtacatcana ggnagattct  
120

ggctttctac ggcaccagaa gntgtttcac tggcnanaan aaant  
165

<210> 450  
<211> 184  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 450

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60

aacaaagaat tactgattca gctacgcagc agaacatatg tgctctactc tttcaagatt  
120

aataatcttg ctttatgtca tattgtatat ttaatcttag tctgttgcn gggagggctc  
180

atgc  
184

<210> 451  
<211> 271  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 451

tgcagccct cctccgggg cattctgttt ccagncact tcgggctatg tagtctctc  
60

ttctgtctg aggcctggcc cagtcacaa gcatttctt ccagaccac aacctccagg  
120

gactgggaca aactggggca ggatgatttg ccacttgott ggcccgtga tcccagcccg  
180

atacctctcc tctctactct cccaggagac tctcaggccc agtgtgaccc tggggcttgg  
240

ctgagaagct gacccagccc cagggccagc a  
271

<210> 452  
<211> 103  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 452

caaggagaag cagataaaga agcaaacggc tntcgtctga gctggtgaaa cancaagccc  
60

aaggcccaca gaagattcag ctgaagacgg tgatgggtga tct  
103

<210> 453  
<211> 284  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 453

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60

tctgtcccca aaatgcctgt ggacttcaac ggggtactgga agatgctgag caacgagaat  
120

ttcgaggagt acctgcgtgc gctcgatgtc aacgtggcct tgcgaaaaat cgccaacttg  
180

ctgaagccgg acaaagagat cgtgcaggat ggcgaccaca tgatcatccg cacgctgagc  
240

acttttcgaa actatatcat ggacttccaa gttgggaagg agtt  
284

<210> 454  
<211> 277  
<212> DNA  
<213> Rattus norvegicus

<223>        unsure at all n locations  
<400>        454

ttctgcataa gggctttcca aattaagtct gtccagtaga gtgatttgct ttattattac  
60

caagaataca acagctagtg aaccgtagca gcatgcgaag aggggctgta actatcacca  
120

tacatgcact gtcccgtgga ggtgtgacac gggagacgtg tggatcatgt gatcattgtg  
180

aacaccttgt gagctttaa ataaagtcca cctgtggtg tcaaaaaana aaaaananan  
240

nannaggagn nannannnnn ggattangga ccccccc  
277

<210>        455  
<211>        155  
<212>        DNA  
<213>        Rattus norvegicus

<223>        unsure at all n locations  
<400>        455

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60

nggccatgta gctgccagga ctgctctgcc gtctgngtc ccaaaccaca tccccacaa  
120

tccttgacac actaataaag gctttgtgac ctcaa  
155

<210>        456  
<211>        277  
<212>        DNA  
<213>        Rattus norvegicus

<400>        456

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60

gggggtggtg ggcgggtgcc atggaagtgg taatgcatgt gttgatgcag ggattatgca  
120

agctgaaaact tggtctcagg ggccatgtca gatgtgtgag aatacctgga ctctgggtt  
180

tctccatag taaaggggtg ttctcccact ctctacaagt ctcttcatgc cagagggttt  
240

tcaagactcc catttagtgg ccaggaggat ttcattg  
277

<210> 457  
<211> 277  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 457

cgangatctt gagactggtg tttctgtggt cactggtgga caggatgtat gtagcgtgcg  
60

cgtgtgtgta agtgtgggtg tgtgtgcgtg ctctgctcat ctctagggaa cttcgagggtg  
120

ggaagtggga ggtgggaggt ggagggaccc agtagtgaga agaactagga ggtgaggcct  
180

aatgggccgc agattggtca tgttttggtg ctgatgacag aggggccagt cccaggggag  
240

gaggettngc gggccnactt tnttgtctcc tgtcgna  
277

<210> 458  
<211> 233  
<212> DNA  
<213> Rattus norvegicus  
  
<400> 458

cctcattgaa catggctcca atgaattcac tatgtttctga agacatgcaa gatttcatgc  
60

caaatatata ttcagtgcta aaaaaacaaa atcctgtgtt cagtttagaa tgttttgatg  
120

tagctgagaa gctttgccca acaacaataa ctgaagctac tgtagttcat aaagttcaca  
180

tggttttata gcctttgcaa aacatatcta taaatcaatt actttttgaa aat  
233

<210> 459  
<211> 294  
<212> DNA

<213> Rattus norvegicus

<223> unsure at all n locations

<400> 459

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gtcacccgta atccaccgcc ctggccgagg aaggcatagc tgctggaggt gtaatggacg  
120

tcaacactgc tctacaagag gtgctgaaga ccgccctcat ccacgatggc ctagcacgtg  
180

gcatacgcga agtgccaaag ccttagacaa gcgccaagcc catctctgcg tgcttgcatc  
240

caatgtgatg agcccatgta tgtcaagctg gtgnnggcct ttttnccgaa caaa  
294

<210> 460

<211> 300

<212> DNA

<213> Rattus norvegicus

<223> unsure at all n locations

<400> 460

atctggccat aatttaattc catctctagg tttctgtct tattgtttca gaggcacatc  
60

gagaaccaac catgggcagc ttactaagg aagagttgac tgccatatcc tcgatgaagg  
120

nttactgct aaggacattc tggacaaaa aatcaatgaa gttctcctct gatgataagg  
180

atgctttcta tgttgccgac ctgggagacg ttctaaagaa gcatctgagg tggctgaaag  
240

tcttccccgt gtactccctt ctagctgtca gtgtatgaca gcgagccata gtgagcacct  
300

<210> 461

<211> 121

<212> DNA

<213> Rattus norvegicus

<223> unsure at all n locations

<400> 461



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120

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121

<210> 462  
<211> 133  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 462

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gacccctata actccnnnag gctgtcctca gcttgngnac agcctnagcc actccaaant  
120

tngatcaaac gtt  
133

<210> 463  
<211> 281  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 463

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ctccggtgtc ccaaactaga ggtgagcatg gcagaacagg aaccactgc tgagcagctc  
120

gctcagatag ctggagagaa tgaggaagac gagcactctg tgaactacaa gcctccagcc  
180

cagaagagca tccaggagat ccaggaactg gacaaggatg atgaaagcct tcgaaagtac  
240

aaggnggccg tgctgggccg agtagctgtc tetgcagacc c  
281

<210> 464  
<211> 264

<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 464

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tgcctancaa tgaccacca gcagantgtt ctccagggcc cgggaccng gggtttccga  
120

ntcgtgggcy gcaaggactt tgagcaacct ctgcctattt cccgggtcac tcccgggagc  
180

aaggntgnta tagctaactt atgcatagga gatttnatca cagccattga tggggnagat  
240

accancagta tgacaaatnn gaag  
264

<210> 465  
<211> 277  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 465

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60

tgtccacgaa atcctgtgca acnctcagct tggagggtga tcattctaca cccccaagtg  
120

ccnatgggtc ggtcaaacc tacaccaact tcgacgntga gagggatgct ttgaacattg  
180

aaacagcaat caagaccaa ggcgtggacg aggtcaccat tgtcaacatt ctgactaacc  
240

gcagcaatgc acagaggcag gacattgcct tcgccta  
277

<210> 466  
<211> 249  
<212> DNA  
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<223> unsure at all n locations  
<400> 466

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ctcacctga ccaagtttct ctgagtgtcc agccaacca ggctcaccag ctcctcnag  
120

ctaccgncg tccatcaggt caactgccaa cccagggctg aanaccaaac ccagctatga  
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gctcctggag gcatgactcc ctcagggccg gcagctccga tccctcccag tagtgatcat  
240

gggcnaggg  
249

<210> 467  
<211> 253  
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<213> Rattus norvegicus  
  
<223> unsure at all n locations  
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tcctgcgagt actccaacac caacatcgat gggcgggcga aaatagcctt cgctatcact  
120

gccattaagg ttctggccaa cgggtctagac aacaagctgc gtgaggacct ggagcggctg  
180

aagaaaaatcc gagcccatag agggctgcgc cacttttggg gccttcgtgt ccgggggtcag  
240

cacaccaaga cat  
253

<210> 468  
<211> 301  
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<223> unsure at all n locations  
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60

cttccccgtg ttactccctt ctatgctgtc aagtgtaatg acagcagagc catagtgagc  
120

accctggctg ccattgggac aggatttgat tgtgcaagca agactgaaat acagttggtg  
180

caggggcttg gggcgccctcc agagaggatt atctatgcaa atccttgtaa gcnagtgtct  
240

cagatcaagt atgctgccag taatggagtc cagatgatga cttttgacag tgaaattgag  
300

t  
301

<210> 469  
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<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 469

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gcttggtccc ctaagctatc cggcgccatc cttgtcgntg cggcgacact cgcaacatct  
120

gcagccatga ccgagc  
136

<210> 470  
<211> 147  
<212> DNA  
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<223> unsure at all n locations  
<400> 470

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gatcnttgta aatacagagc tgagtatgnc tngtggttaa acgancacag ggtntgtggt  
120

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147

<210> 471  
<211> 294  
<212> DNA  
<213> Rattus norvegicus

<223>        unsure at all n locations  
<400>        471

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ggctgtncgc agctgcaccc gnccgctctg tctgccgtgg gcttcaactgg gtcaggcatt  
120

ggcagctgca tcccatageg ggncaagatg atgtctgctg cagcagttgc caacgggggc  
180

ggagtcgnen caggaagcct tggtagccan actacagtcc antangtgta tttggnnttn  
240

tccaacatna ancaacnate catcttgggg tcttttgng naanccatna gagt  
294

<210>        472  
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<212>        DNA  
<213>        Rattus norvegicus

<223>        unsure at all n locations  
<400>        472

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60

ccactccggg ctctctagga aggcagctct ggagtgagaa gggctttgcc tccaggcttg  
120

ctgcctctct gacccaatcc tcccgctgac ccaacatcag cggtcgcaac cctcgccgcc  
180

tctgggaaac tttgccatt gcaacgggca gacacttctc actggaactt acaatctgcg  
240

agccaggaca ggatccccag gcgcagggan ggaatthttgt ctattgggac agtgttctct  
300

<210>        473  
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<212>        DNA  
<213>        Rattus norvegicus

<400>        473

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gaatacaatg aaaagaagta ccagcaagtt ctcaaagcat gcgctctcct cccagacttg  
120

gaaatattgc ctggaggaga catggctgag atcggagaga aggggataaa tctcagtggt  
180

ggtcagaagc agcgagtcag cctggccaga gctgcctatc aagatgctga catctatatt  
240

ctggacgatac ccctgtcggc tgtggatgct catgtg  
276

<210> 474  
<211> 155  
<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 474

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catcagaata gctaagagt gaagcaanca ctctgccatt acttgggant cttctgctc  
120

ccgtgtgaga ggatgtgtcg gagaggttca ccagc  
155

<210> 475  
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<213> Rattus norvegicus

<223> unsure at all n locations  
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ttgtcaagac ttttcogtat gtatggntc tttgnggtgt ctcatncng ggaggttaatt  
120

gtgggaacgg tgacacttac tatctgtatg atgnccatga acatgttcac cggcaacaac  
180

aagatctgtg gttggaatta tgagtgccca nnatttgaag angacgtgct gancagcgac  
240

atcatcance tcagganaan ccggtnatcg ccatecgtac at  
282

<210> 476  
<211> 225  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 476

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ctcttgtctt ctgtccaaca tggcatcttc tgatattcag gtgaaatgct tccggccagg  
120

ctttgagtga tccagcctcg atcaaaagaa ttgtcccgag tcccctttcc cccaaagaga  
180

ggncttcctg agaatcagag aatagantga agaaaganct agaca  
225

<210> 477  
<211> 296  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 477

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agaacttgat ngctggggaa ggggtgaaga ttagctctga tctcattagc ttggaggtta  
120

gctctccaca tgtcccagac ctnactctga ttgaccttcc tggatatcaca agagtggctg  
180

tgggtgacca gcctgcagac atcgaacaca agatcaagan acttatcact gaatacatcc  
240

agaaacagga gaccatcaac ctggtggtgg tccccagcaa tgtggcattg ccacca  
296

<210> 478  
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<213> Rattus norvegicus  
  
<223> unsure at all n locations  
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60

cagttcacct ctgtgggctg cggagcacct ctgccgcagc ccagacatct tccctgagca  
120

gaggcagaac aagcataggc gctttcagaa taccctagcc gtcctccgga agtctggttt  
180

gntgggaatc actctgaaag ccaaggagtt gattcgtcag aaccaagcaa ctnaggtgna  
240

actggaccag ctgaaggagc aaaccagatg ttnatagagg ccaccaagac aggg  
294

<210> 479  
<211> 281  
<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
<400> 479

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60

atgtgcatgg gcaatttcat gacctcatgg aactcttttag aattggtggt aaatcacaga  
120

tacaaattac ttgtttatgg gagactatgt ggacagagga tattactcag ttgaaacagt  
180

tacactgctt gtagctctta aggttcgtta ccgagagcgt atcaccatac tccganggaa  
240

tcacgagagc agacagatca cacaagtta tggtttctac g  
281

<210> 480  
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<212> DNA  
<213> Rattus norvegicus  
  
<223> unsure at all n locations  
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aacccaggag ctttctctct gnggaagggg tgganatagc tgtttaaaga cactgcaacc  
120



agaaagccaa gcattctgtc actaagcagg anactgagtg cccacttgga agaagaaata  
180

aaagatgggtt cttagcacag aggaaaacag gagtgttgat ttagtcaact taccagtg  
240

cccactgccc gatggagagg ctggcgtagg ggagaacaac gggattcctt gna  
293

<210> 481  
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<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
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agaaagggtcc ccgcacccgt caggggtctg gtgcagagtc tgaagnctg tatgactttg  
120

tttttattgt ggctgggtgag aaataggatg gtgaagagat ggagattggg gaagtagctt  
180

gcgggaactc tggatngatc aatncccagc tngtttgggg gtcccnagcc anaagaggca  
240

nncccagnng attcgnaat ttgnncacnc ctggagctgt cnacaattcc tcttcnc  
298

<210> 482  
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<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 482

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agtna  
65

<210> 483  
<211> 270  
<212> DNA  
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<223> unsure at all n locations  
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ccctcacctt cttaagaga agaaagtggc cattagcctt tggttctggc gtgggactgg  
120

ggatggccta ctccaactgt cagcatgact ttcaggctcc atatcttcta catggaaaat  
180

atgtcaaaga gcagtgactt atgctangaa catcccagcg ggagaaaaga gaagcctcgt  
240

ttattcctca ggaatactga agtgccttgg  
270

<210> 484  
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<212> DNA  
<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 484

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60

ctgacccaag ggctggaacg aatcccagac cagcttgggt acctggtgct gacgaaggt  
120

gcagtgctag cgtcatctgg ggatcttgag aacgatgagc aggcagccag cgccatctna  
180

gagctgggtca gcacagcctg tggcttccgg ctgcaccatg gcacgaacat ccttttcaag  
240

cgctgtctg tggcttttgg tgaacacacg ctgctgg  
277

<210> 485  
<211> 279  
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<213> Rattus norvegicus

<223> unsure at all n locations  
<400> 485

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tccgagtgat caacgagcct acagctgcag ctctggctta cggctctggac aaatccgaag  
120

acaaagtcac tgctgtatat gatttaggtg gaggaacctt tgacatttct atcctggaaa  
180

ttcagaaagg agtgtttnan gtgaaatcca ccaatgggga cactttctta ggaggtgaag  
240

actttgacca agctttgtta cggcacattg tcaaggagt  
279

<210> 486  
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<213> Rattus norvegicus

<223> unsure at all n locations  
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gggctgcggg anggtccgga cccggcgctc gattgcagcg ccatccagtt tgcataaac  
120

tttcacctgc gctcccgga acagtttctg ctccgactcc tgatcggtca cctccctgtt  
180

ttcccgacag cggggactgt cttt  
204

<210> 487  
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<212> DNA  
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<223> unsure at all n locations  
<400> 487

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cgccgctgcc acccaccagc aacctgagc gcgccccgcc ccggtgtagt ctgctgtcct  
120

ctagattagt gctctcctcc gcgacggctc gcagcatgga gtcgccccgc gccagccgc  
180

cgccagctt gctcagacc aaaggaaaat ccaaaaggaa aagggtatta cgaatatact  
240

gtgtgtccaa gccacccgtg tccaacccca cccccccgg aaactggact  
290

<210> 488  
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<212> DNA  
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<223> unsure at all n locations  
<400> 488

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60

cgtctgtgtc caggtegggtc tggctgtcca tcagctctcg tcatngggag agtcagcttc  
120

ccggagggtt tggttgatgg gcgcttggca ggtngctgtt ggggaa  
166

<210> 489  
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gaattggaat ggatttaaaa ctatccaacc acgtttttta tgctttaaaa caacatgcct  
120

actcggaaga acgtcgaagt gcccgctctcc atgagaagaa ggaacattcc accgctgaaa  
180

aagcagttga tctaagaca cgcttactta tgtataaaat ggtcaactct ggaatgttgg  
240

agacaatcac tggctgtatt ag  
262

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<400> 491

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21

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26

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25

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24

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27

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23

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27

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24

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22

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<210> 516

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<213> Rattus norvegicus

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<210> 517

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<400> 517

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<210> 518

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26

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23

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21

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22

<210> 525

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